ORDER NO. CPD0711208C1

# Service Manual

*Simplified*

Notebook Computer

## Model No. CF-19FHGAXxM

TOUGHBOOK

This is the Service Manual for
the following areas.
M …for U.S.A. and Canada

Model No. CF-19FHGAX _1_ M

1: Operation System
- A: Microsoft® Windows® XP Professional
- J: Microsoft® Windows® VISTA Business

**⚠ WARNING**

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

Panasonic®

# WARNING

## For U.K.

### This apparatus must be earthed for your safety.

To ensure safe operation the three-pin plug must be inserted only into a standard three-pin power point which is effectively earthed through the normal household wiring.
Extension cords used with the equipment must be three-core and be correctly wired to provide connection to earth. Wrongly wired extension cords are a major cause of fatalities.
The fact that the equipment operates satisfactorily does not imply that the power point is earthed and that the installation is completely safe.
For your safety, if you have any doubt about the effective earthing of the power point, consult a qualified electrician.

**FOR YOUR SAFETY PLEASE READ THE FOLLOWING TEXT CAREFULLY**

This appliance is supplied with a moulded three pin mains plug for your safety and convenience.
A 3 amp fuse is fitted in this plug.
Should the fuse need to be replaced please ensure that the replacement fuse has a rating of 3 amps and that it is approved by ASTA or BSI to BS 1362.

Check for the ASTA mark or the BSI mark on the body of the fuse.
If the plug contains a removable fuse cover you must ensure that it is refitted when the fuse is replaced.
If you lose the fuse cover the plug must not be used until a replacement cover is obtained.
A replacement fuse cover can be purchased from your local Panasonic Dealer.
IF THE FITTED MOULDED PLUG IS UNSUITABLE FOR THE SOCKET OUTLET IN YOUR HOME THEN THE FUSE SHOULD BE REMOVED AND THE PLUG CUT OFF AND DISPOSED OF SAFELY.
THERE IS A DANGER OF SEVERE ELECTRICAL SHOCK IF THE CUT OFF PLUG IS INSERTED INTO ANY 13 AMP SOCKET.
If a new plug is to be fitted please observe the wiring code as shown below.
If in any doubt please consult a qualified electrician.

**Warning: THIS APPLIANCE MUST BE EARTHED.**

**Important**

The wires in this mains lead are coloured in accordance with the following code:

| | |
|---|---|
| Green-and-yellow: | Earth |
| Blue: | Neutral |
| Brown: | Live |

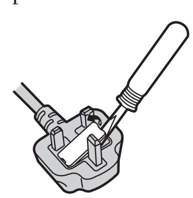
As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:
The wire which is coloured GREEN-and-YELLOW must be connected to the terminal in the plug which is marked by the letter E or by the safety earth symbol ⏚ coloured GREEN or GREEN-and-YELLOW.

The wire which is coloured Blue must be connected to the terminal which is marked with the letter N or coloured BLACK.
The wire which is coloured Brown must be connected to the terminal which is marked with the letter L or coloured RED.

The mains plug on this equipment must be used to disconnect the mains power.
Please ensure that a socket outlet is available near the equipment and shall be easily accessible.

## ■ How to replace the fuse

Open the fuse compartment with a screwdriver and replace the fuse.



**Warnings**

- This equipment is not designed for connection to an IT power system.
  (An IT system is a system having no direct connections between live parts and Earth; the exposed-conducive-parts of the electrical installation are earthed.
  An IT system is not permitted where the computer is directly connected to public supply systems in the U.K.)
- Disconnect the mains plug from the supply socket when the computer is not in use.

This equipment is produced to BS800/1983.

# LASER SAFETY INFORMATION

## For U.S.A.

Class 1 LASER-Product

This product is certified to comply with DHHS Rules 21 CFR Subchapter J.
This product complies with European Standard EN60825 (or IEC Publication 825)

For all areas
This equipment is classified as a class 1 level LASER product and there is no hazardous LASER radiation.

> Caution:
> (1) Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.
> (2) The drive is designed to be incorporated into a computer-based system or unit which has an enclosing cover. It should never be used as a stand alone drive.

> Danger:
> The serviceman should not remove the cover of drive unit and should not service because the drive unit is a nonserviceable part.
> Please check DANGER label on PD-drive unit.

- Unplug the AC power cord to the equipment before opening the top cover of the drive.
  When the power switch it on, do not place your eyes close to the front panel door to look into the interior of the unit.

LASER Specification

Class 1 level LASER Product
Wave Length: DVD 658±8 nm
CD 775~815 nm

Laser safety information is appropriate only when drive with laser is installed.

# SAFETY PRECAUTIONS

1. Before servicing, unplug the power cord to prevent an electric shock.
2. When replacing parts, use only manufacture's recommended components for safety.
3. Check the condition of the power cord. Replace if wear or damage is evident.
4. After servicing, be sure to restore the lead dress, insulation barriers, insulation papers, shields, etc.

## Important Safety Instructions

When using your telephone equipment, basic safety precautions should always be followed to reduce the risk of fire, electric shock and injury to persons, including the following:

1. Do not use this product near water, for example, near a bath tub, wash bowl, kitchen sink or laundry tub, in a wet basement or near a swimming pool.
2. Avoid using a telephone (other than a cordless type) during an electrical storm. There may be a remote risk of electric shock from lightning.
3. Do not use the telephone to report a gas leak in the vicinity of the leak. vicinity of the leak.
4. Use only the power cord and batteries indicated in this manual. Do not dispose of batteries in a fire. They may explode. Check with local codes for possible special disposal instructions.

SAVE THESE INSTRUCTIONS

# LITHIUM BATTERY

This computer contains a lithium battery to enable the date, time, and other data to be stored. The battery should only be exchanged by authorized service personel.
Warning! A risk of explosion from incorrect installation or misapplication may possibly occur.

### LITHIUM BATTERY ⚠

- **CAUTION**

  Danger of explosion if battery is incorrectly replaced.
  Replace only with the same or equivalent type recommended by the equipment manufacturer.
  Dispose of used batteries according to the manufacturer's instructions.

### LITHIUMBATTERIES ⚠

**Vorsicht!**

Explosionsgefahr bei unsachgemäßem Austausch der Batterie. Ersatz nur durch denselben order einen vom Hersteller empfohlenen ähnlichen Typ. Entsorgung gebrauchter Batterien nach Angaben des Herstellers.

### PILE AU LITHIUM ⚠

ATTENTION: IL Y A DANGER D'EXPLOSION S' IL Y A REMPLACEMENT INCORRECT DE LA PILE. REMPLACER UNIQUEMENT AVEC UNE PILE DU MÈME TYPE OU D'UN TYPE RECOMMANDÉ PAR LE CONSTRUCTEUR. METTRE AU RÉBUT LES PILES USAGÉES CONFORMÉMENT AUX INSTRUCTIONS DU FABRICANT.

# Precautions (Battery Pack)

**Do Not Use with Any Other Product**
The battery pack is rechargeable and was intended for the specified product. If it is used with a product other than the one for which it was designed, electrolyte leakage, generation of heat, ignition or rupture may result.

**Do Not Charge the Battery Using Methods Other Than Those Specified**
If the battery is not charged using one of the specified methods, electrolyte leakage, generation of heat, ignition or rupture may result.

**Do Not Throw the Battery Pack into a Fire or Expose It to Excessive Heat**
Generation of heat, ignition or rupture may result.

**Avoid Extreme Heat (Near the Fire, in Direct Sunlight, for Example)**
Electrolyte leakage, generation of heat, ignition or rupture may result.

**Do Not Insert Sharp Objects into the Battery Pack, Expose It to Bumps or Shocks, Disassemble, or Modify It**
Electrolyte leakage, generation of heat, ignition or rupture may result.

**Do Not Short the Positive (+) and Negative (-) Contacts**
Generation of heat, ignition or rupture may result. Do not place the battery pack together with articles such as necklaces or hairpins when carrying or storing.

**Do Not Use This Product with a Battery Pack Other Than the One Specified**
Use only the specified battery pack with your product. Use of battery packs other than those manufactured and supplied by Panasonic may present a safety hazard (generation of heat, ignition or rupture).

A lithium ion battery that is recyclable powers the product you have purchased.
Please call 1-800-8-BATTERY for information on how to recycle this battery.

L’appareil que vous vous êtes procuré est alimenté par une batterie au lithium-ion.
Pour des renseignements sur le recyclage de la batterie, veuillez composer le 1-800-8-BATTERY.

- Do not touch the terminals on the battery pack. The battery pack may no longer function properly if the contacts are dirty or damaged.
- Do not expose the battery pack to water, or allow it to become wet.
- If the battery pack will not be used for a long period of time (a month or more), charge or discharge (use) the battery pack until the remaining battery level becomes 30% to 40% and store it in a cool, dry place.
- This computer prevents overcharging of the battery by recharging only when the remaining power is less than approx. 95% (when Economy Mode (ECO) is enabled: 75%) of capacity.
- The battery pack is not charged when the computer is first purchased. Be sure to charge it before using it for the first time. When the AC adaptor is connected to the computer, charging begins automatically.
- Should the battery leak and the fluid get into your eyes, do not rub your eyes. Immediately flush your eyes with clear water and see a doctor for medical treatment as soon as possible.

**NOTE**

- The battery pack may become warm during recharging or normal use. This is completely normal.
- Recharging will not commence if internal temperature of the battery pack is outside of the allowable temperature range (0 °C to 55 °C {32 °F to 131 °F}). (➔ *Reference Manual* “Battery Power”) Once the allowable range requirement is satisfied, charging begins automatically. Note that the recharging time varies based on the usage conditions. (Recharging takes longer than usual when the temperature is 10 °C {50 °F} or below.)
- If the temperature is low, the operating time is shortened. Only use the computer within the allowable temperature range.
- The battery pack is a consumable item. If the amount of time the computer can be run by using a particular battery pack becomes dramatically shorter and repeated recharging does not restore its performance, the battery pack should be replaced with a new one.
- When transporting a spare battery inside a package, briefcase, etc., it is recommended that it be placed in a plastic bag so that its contacts are protected.
- Always power off the computer when it is not in use. Leaving the computer on when the AC adaptor is not connected will exhaust the remaining battery capacity.

# CONTENTS

# 1. Specifications

This page provides the specifications for the basic model CF-19FHGAXBM/CF-19FDGAXVM.
The model number is different according to the unit configuration.

To check the model number:
Check the bottom of the computer or the box the computer came in at the time of purchase.
To check CPU speed, memory size and the hard disk drive (HDD) size:
Run the Setup Utility ( *Reference Manual* “Setup Utility”) and select [Information] menu.
[CPU Speed]: CPU speed, [System Memory]: Memory size, [Hard Disk]: Hard disk drive size

**Main Specifications**

| Model No. | | CF-19FHGAXBM | CF-19FDGAXVM |
|---|---|---|---|
| CPU | | Intel® Core™ 2 Duo Processor U7500 (1.06 GHz, 2 MB[*1] L2 cache, 533 MHz FSB) | |
| Chipset | | Intel® GM965 | |
| Memory[*2*4] | | 1 GB (4 GB Max.) | |
| Video Memory[*1*3] | | UMA (384 MB Max.) | |
| Hard Disk Drive[*4] | | 80 GB | |
| Display Method | | 10.4 XGA type (TFT) | |
| | Internal LCD[*5] | 65,536/16,777,216 colors (800 × 600 dots/1024 × 768 dots) | |
| | External Display[*6] | 65,536/16,777,216 colors (800 × 600 dots/1024 × 768 dots/1280 × 768 dots/1280 × 1024 dots/1440 × 900 dots) | |
| Wireless LAN[*7] | | | |
| Bluetooth™ [*8] | | | |
| LAN | | IEEE 802.3 10BASE-T, IEEE 802.3u 100BASE-TX, IEEE 802.3ab 1000BASE-T | |
| Modem | | Data: 56 kbps (V.92) FAX: 14.4 kbps | |
| Sound | | WAVE and MIDI playback, Intel® High Definition Audio subsystem support, Monaural speaker | |
| Security Chip | | TPM (TCG V1.2 compliant)[*9] | |
| Card Slot | PC Card | Type I or Type II x 1 (3.3 V: 400 mA, 5 V: 400 mA) | |
| | ExpressCard[*10] | ExpressCard/34[*11] or ExpressCard/54 x 1 | |
| | Smart Card[*12] | ISO7816 x 1 | |
| | SD Memory Card[*13] | x 1, Data transfer rate = 8 MB per second[*14] | |
| RAM Module Slot | | 200-pin, 1.8 V, SO-DIMM, DDR2 SDRAM, PC2-4200 Compliant | |
| Interface | | USB port (4-pin, USB 2.0) x 2, Serial Port (Dsub 9-pin male), Modem port (RJ-11), LAN port (RJ-45), External display port (Mini Dsub 15-pin female), Expansion Bus Connector (Dedicated 100-pin female), External Antenna Connector (Dedicated 50 Ω coaxial connector) x 2, IEEE 1394a Interface Connector (4-pin x 1), Microphone Jack (Miniature jack, 3.5 DIA, Stereo), Headphone Jack (Miniature jack, 3.5 DIA, Impedance 32 Ω, Output Power 4 mW × 2) | |
| Keyboard / Pointing Device | | 82 keys / Touch Pad / Touchscreen (Anti-Reflection, Stylus (included) touch capable) | 82 keys / Touch Pad / Digitizer (Anti-Reflection) |
| Power Supply | | AC adaptor or Battery pack | |
| AC Adaptor[*15] | | Input: 100 V to 240 V AC, 50 Hz/60 Hz, Output: 16.0 V DC, 3.75 A | |
| Battery Pack | | Li-ion 10.65 V, 5.7 Ah | |
| | Operating Time[*16] | Approx. 7 hours[*17] | |
| | Charging Time[*16] – Power on | Approx. 7.5 hours | |
| | Charging Time[*16] – Power off | Approx. 4.5 hours | |
| Clock Battery | | Coin type lithium battery 3.0 V | |
| Power Consumption[*18] | | Approx. 30 W[*19] / Approx. 60 W (Maximum when recharging in the ON state) | |
| Physical Dimensions (W × H × D) (excluding the hand strap/shoulder strap) | | 271 mm × 49 mm × 216 mm {10.7" × 1.93" × 8.5"} | |
| Weight (excluding the hand strap/shoulder strap) | | Approx. 2.30 kg {Approx. 5.06 lb.} | Approx. 2.35 kg {Approx. 5.17 lb.} |
| Operation Environment | | Temperature: 5 °C to 35 °C {41 °F to 95 °F}<br>Humidity: 30% to 80% RH (No condensation) | |
| Storage Environment | | Temperature: -20 °C to 60 °C {-4 °F to 140 °F}<br>Humidity: 30% to 90% RH (No condensation) | |

### Main Specifications

| | | |
|---|---|---|
| Operating System | Microsoft® Windows® XP Professional Service Pack 2 with Advanced Security Technologies (NTFS File System) | Microsoft® Windows® XP Tablet PC Edition 2005 (NTFS File System) |
| Utility Programs | DMI Viewer, Microsoft® Windows® Media Player 10, Adobe Reader, PC Information Viewer, SD Utility, Icon Enlarger, Loupe Utility, Intel® Matrix Storage Manager, Intel® PROSet/Wireless Software[*7], Bluetooth™ Stack for Windows® by TOSHIBA[*8] , Wireless Switch Utility, Hotkey Settings, Battery Recalibration Utility, Panasonic Hand Writing[*20], Software Keyboard[*20], Display Rotation Tool, Infineon TPM Professional Package[*21], Recover Pro™ 6[*21] or Recover Pro™ VX[*21] , Tablet Buttons Settings[*20], Power Saving Utility, Wireless Connection Disable Utility[*21] | |
| | Setup Utility, Hard Disk Data Erase Utility[*22], PC-Diagnostic Utility | |

### Wireless LAN <Only for model with wireless LAN>

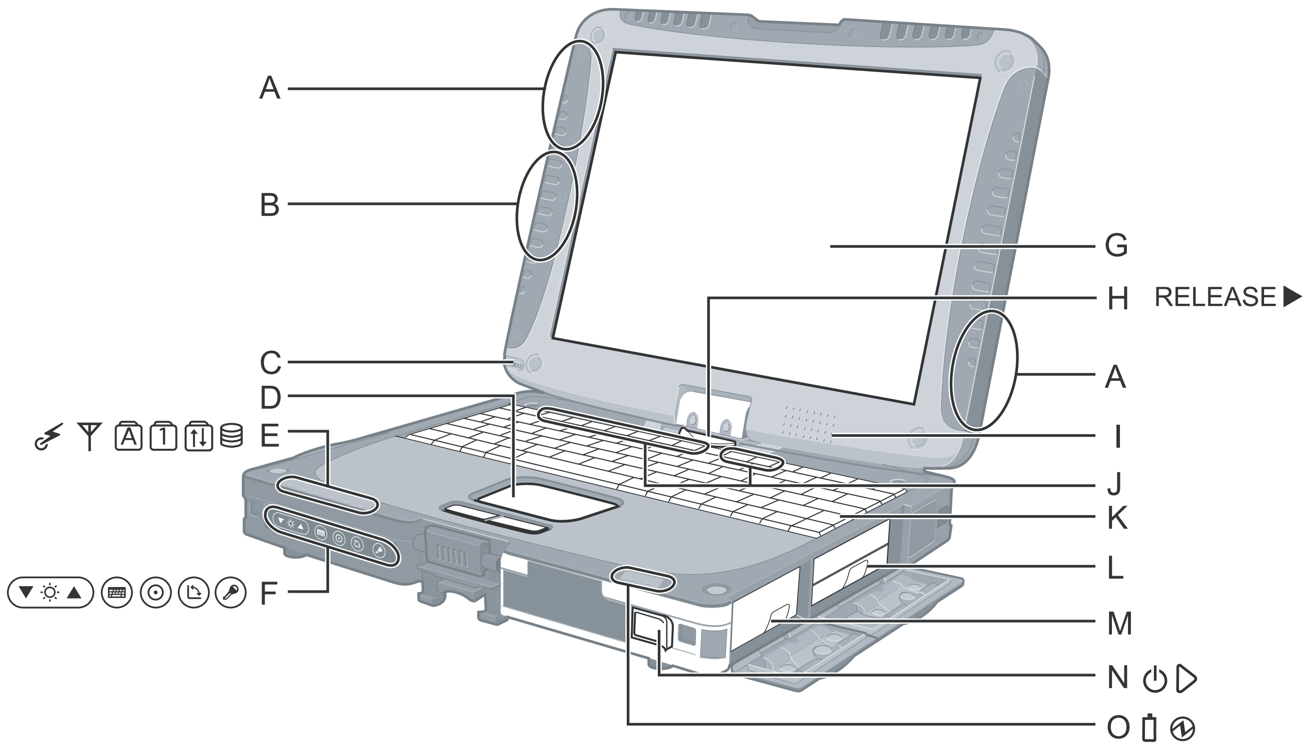
| Intel Wireless WiFi Link 4965AG (802.11 a + b + g)[*23] | |
|---|---|
| Data Transfer Rates[*24] | IEEE802.11a: 54/48/36/24/18/12/9/6 Mbps (automatically switched)<br>IEEE802.11b: 11/5.5/2/1 Mbps (automatically switched)<br>IEEE802.11g: 54/48/36/24/18/12/9/6 Mbps (automatically switched) |
| Standards Supported | IEEE802.11a/IEEE802.11b/IEEE802.11g |
| Transmission method | OFDM system, DSSS system |
| Wireless Channels Used | IEEE802.11a: Channels 36/40/44/48/52/56/60/64/149/153/157/161/165<br>IEEE802.11b/IEEE802.11g: Channels 1 to 11 |
| RF Frequency Band | IEEE802.11a: 5.18-5.32 GHz, 5.745-5.825 GHz<br>IEEE802.11b/IEEE802.11g: 2.412-2.462 GHz |

### Bluetooth™ <Only for model with Bluetooth>

| | |
|---|---|
| Bluetooth Version | 2.0 + EDR |
| Transmission method | FHSS system |
| Wireless Channels Used | Channels 1 to 79 |
| RF Frequency Band | 2.402-2.48 GHz |

*1 1 MB = 1,048,576 bytes
*2 You can physically expand the memory upto 4 GB, but the total amount of usable memory available will be less depending on the actual system configuration.
*3 A segment of the main memory is allotted automatically depending on the computer's operating status. The size of the Video Memory cannot be set by the user.
*4 1 GB = 1,000,000,000 bytes. Your operating system or some application software will report as fewer GB.
*5 A 16,777,216 color display is achieved by using the dithering function.
*6 Maximum resolution depends on the specifications of the external display.
*7 Only for model with wireless LAN
*8 Only for model with Bluetooth
*9 For information on TPM, click [start] - [Run] and input "c:\util\drivers\tpm\README.pdf", and refer to the Installation Manual of "Trusted Platform Module (TPM)".
*10 Only for model with ExpressCard slot
*11 When using ExpressCard/34, the card slot cover cannot be closed.
*12 Only for model with Smart Card slot
*13 SD Memory Cards that support high-speed transfer rates can be used. Windows Ready Boost function is also supported. Operation has been tested and confirmed using Panasonic SD Memory Cards and SDHC Memory Cards with a capacity of up to 8 GB. Operation on other SD equipment is not guaranteed.
This computer is not compatible with MultiMediaCards. Do not insert this kind of cards.
*14 Theoretical value and not the actual speed. The transfer rate does not become higher even if you use a card that supports the higher transfer rate.
*15 <Only for North America>
The AC adaptor is compatible with power sources up to 240 V AC adaptor. The computer is supplied with a 125 V AC compatible AC cord. 20-M-2-1
*16 Varies depending on the usage conditions.
*17 Measured using MobileMark™ 2005 (LCD brightness: 60 cd/m²)
*18 Approx. 0.9 W when the battery pack is fully charged (or not being charged) and the computer is OFF.
*19 Rated power consumption 23-E-1
*20 Only for model with Windows XP Professional
*21 You need to install to use the feature.
*22 The Product Recovery DVD-ROM is required.
*23 It does not correspond to IEEE802.11.n.
*24 These are speeds specified in IEEE802.11a+b+g standards. Actual speeds may differ.

# 2. Names and Functions of Parts




**A: Wireless LAN Antenna**
<Only for model with wireless LAN>
*Reference Manual* “Wireless LAN”

**B: Bluetooth Antenna**
<Only for model with Bluetooth>
*Reference Manual* “Bluetooth”

**C: Stylus/Pen Holder**

**D: Touch Pad**

**E: LED Indicator**

: Wireless ready
This indicator lights when Wireless LAN, Bluetooth, and/or Wireless WAN are connected and ready. It does not necessarily indicate the On/Off condition of the wireless connection.
*Reference Manual* “Disabling / Enabling Wireless Communication”

: Wireless WAN status
<Only for model with wireless WAN>
Refer to the instruction manual of the wireless device.

: Caps lock

: Numeric key (NumLk)

: Scroll lock (ScrLk)

: Hard disk drive status

**F: Tablet Buttons**
*Reference Manual* “Tablet Buttons”

**G: LCD**
<Only for model with touchscreen>
*Reference Manual* “Touchscreen”
<Only for model with digitizer>
*Reference Manual* “Digitizer”

**H: Display Release Latch**

**I: Speaker**
*Reference Manual* “Key Combinations”

**J: Function Key**
*Reference Manual* “Key Combinations”

**K: Keyboard**

**L: Hard Disk Drive**
*Reference Manual* “Hard Disk Drive”

**M: Battery Pack**

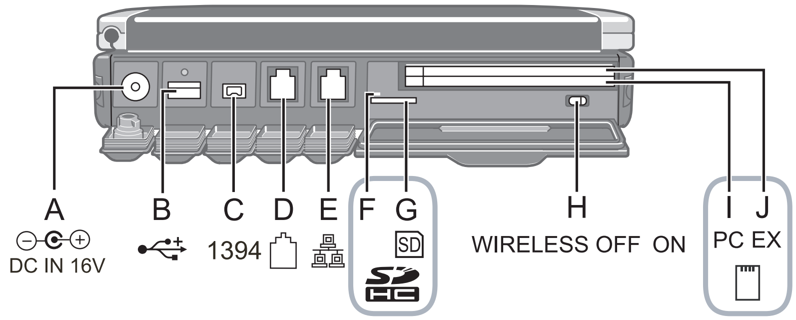
**N: Power Switch**

**O: LED Indicator**

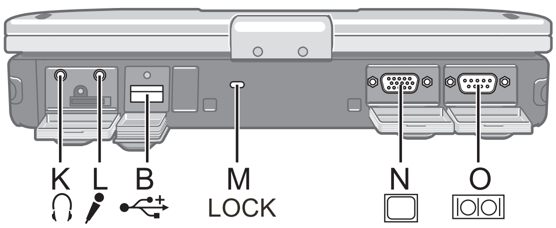
: Battery status
*Reference Manual* “Battery Power”

: Power status
(Off: Power off/Hibernation, Green: Power on, Blinking green: Standby)

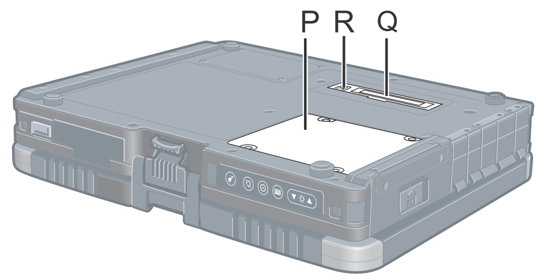
**Left side**




**Rear side**




**Bottom**




**A: DC-IN Jack**

**B: USB Port**

➔ *Reference Manual* "USB Devices"

**C: IEEE 1394 Interface Connector**

➔ *Reference Manual* "IEEE 1394 Devices"

**D: Modem Port**

➔ *Reference Manual* "Modem"

**E: LAN Port**

➔ *Reference Manual* "LAN"

**F: SD Memory Card Indicator**

(Blinking: During access)

➔ *Reference Manual* "SD Memory Card"

**G: SD Memory Card Slot**

➔ *Reference Manual* "SD Memory Card"

**H: Wireless Switch**

➔ *Reference Manual* "Disabling / Enabling Wireless Communication"

**I:** <for model without Smart Card Slot>

**PC Card Slot**

➔ *Reference Manual* "PC Card / ExpressCard"

<for model with Smart Card Slot>

**Smart Card Slot**

➔ *Reference Manual* "Smart Card"

**J:** <for model without Smart Card Slot>

**ExpressCard Slot**

➔ *Reference Manual* "PC Card / ExpressCard"

<for model with Smart Card Slot>

**PC Card Slot**

➔ *Reference Manual* "PC Card / ExpressCard"

**K: Headphone Jack**

You can connect headphones or ampli?ed speakers. When they are connected, audio from the internal speakers is not heard.

**L: Microphone Jack**

A condenser microphone can be used. If other types of microphones are used, audio input may not be possible, or malfunctions may occur as a result.

- When recording in stereo using a stereo microphone:
  Click [start] - [All Programs] - [SoundMAX] - [Control Panel] and select [Microphone], and then add a check mark for [No Filtering] in [Microphone Enhancements].
- When using a monaural microphone with a 2-terminal plug:
  Click [start] - [All Programs] - [SoundMAX] - [Control Panel] and select [Microphone], and then add a check mark for [Voice Recording] in [Microphone Enhancements].
  Otherwise, only audio on the left track will be recorded.

**M: Security Lock**

A Kensington cable can be connected.
For further information, read the manual that comes with the cable.

**N: External Display Port**

➔ *Reference Manual* "External Display"

**O: Serial Port**

**P: RAM Module Slot**

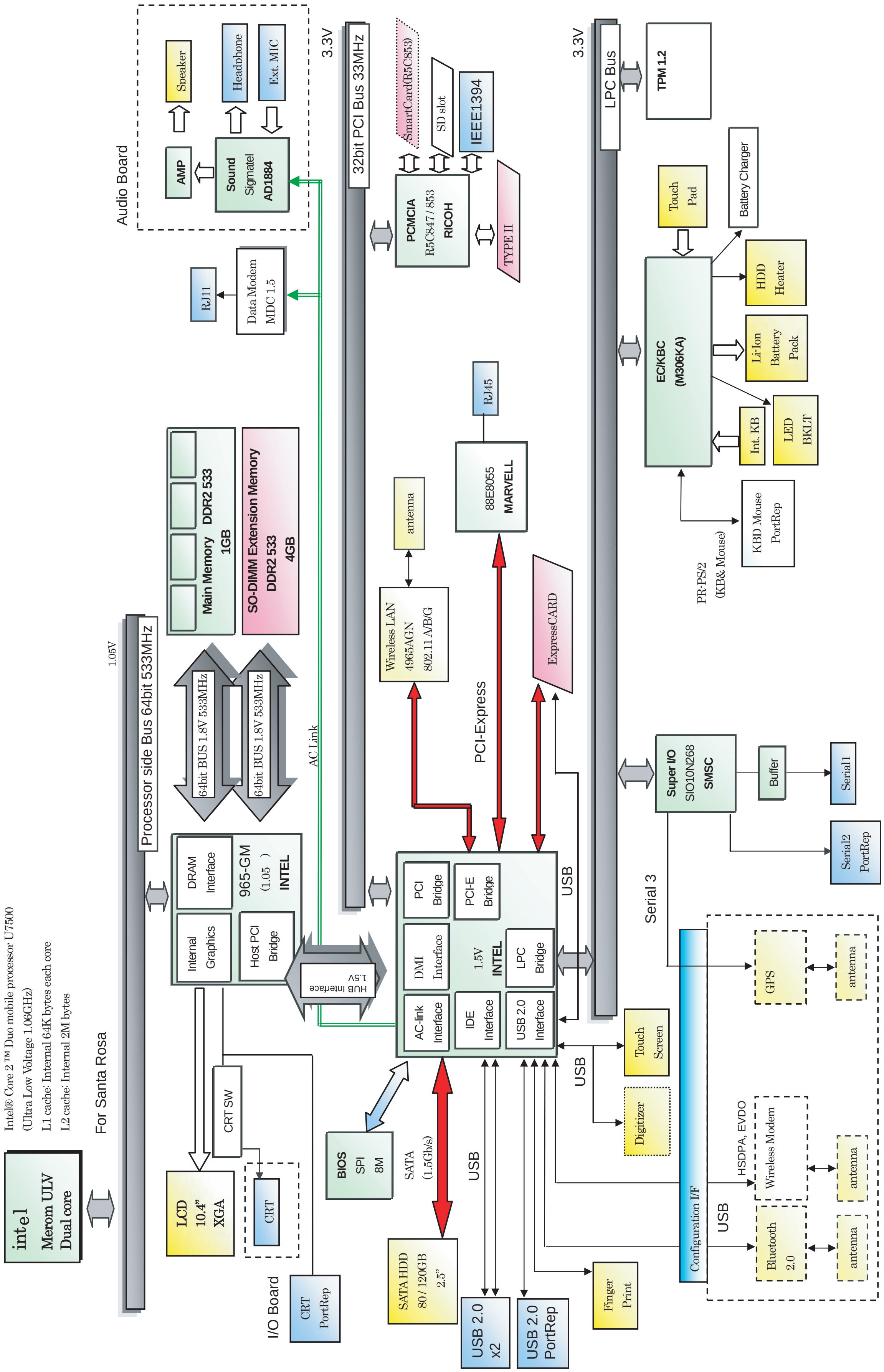
➔ *Reference Manual* "RAM Module"

**Q: Expansion Bus Connector**

➔ *Reference Manual* "Port Replicator / Car Mounter"

**R: External Antenna Connector**

# 3 Block Diagram

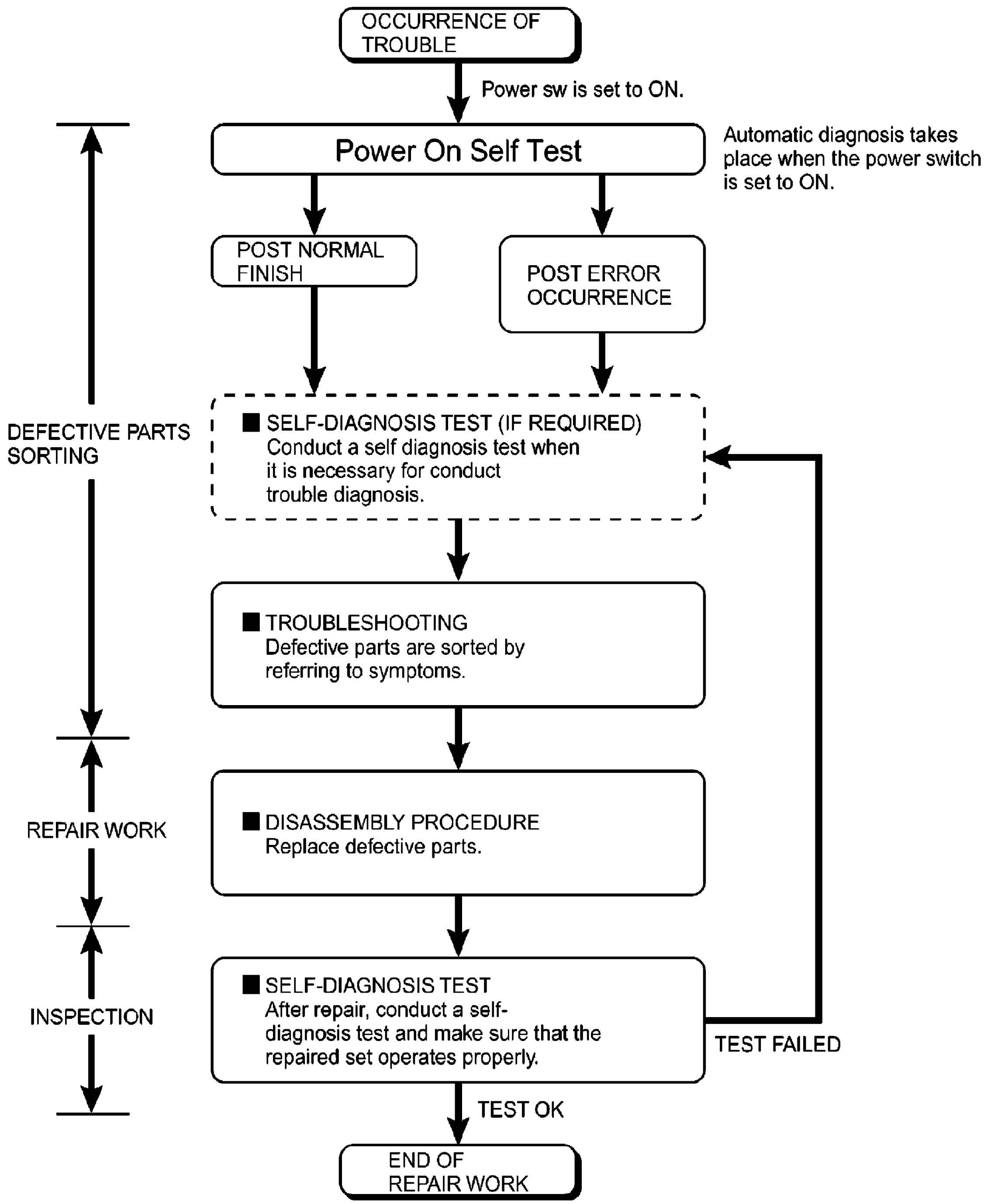


# 4 Diagnosis Procedure

## 4.1. Basic Procedures

The basic procedures for diagnosis, disassembly, and test of defective parts of a set to be repaired are summarized below. For details, refer to relevant pages in the Service Manual.

● **Flow Chart**

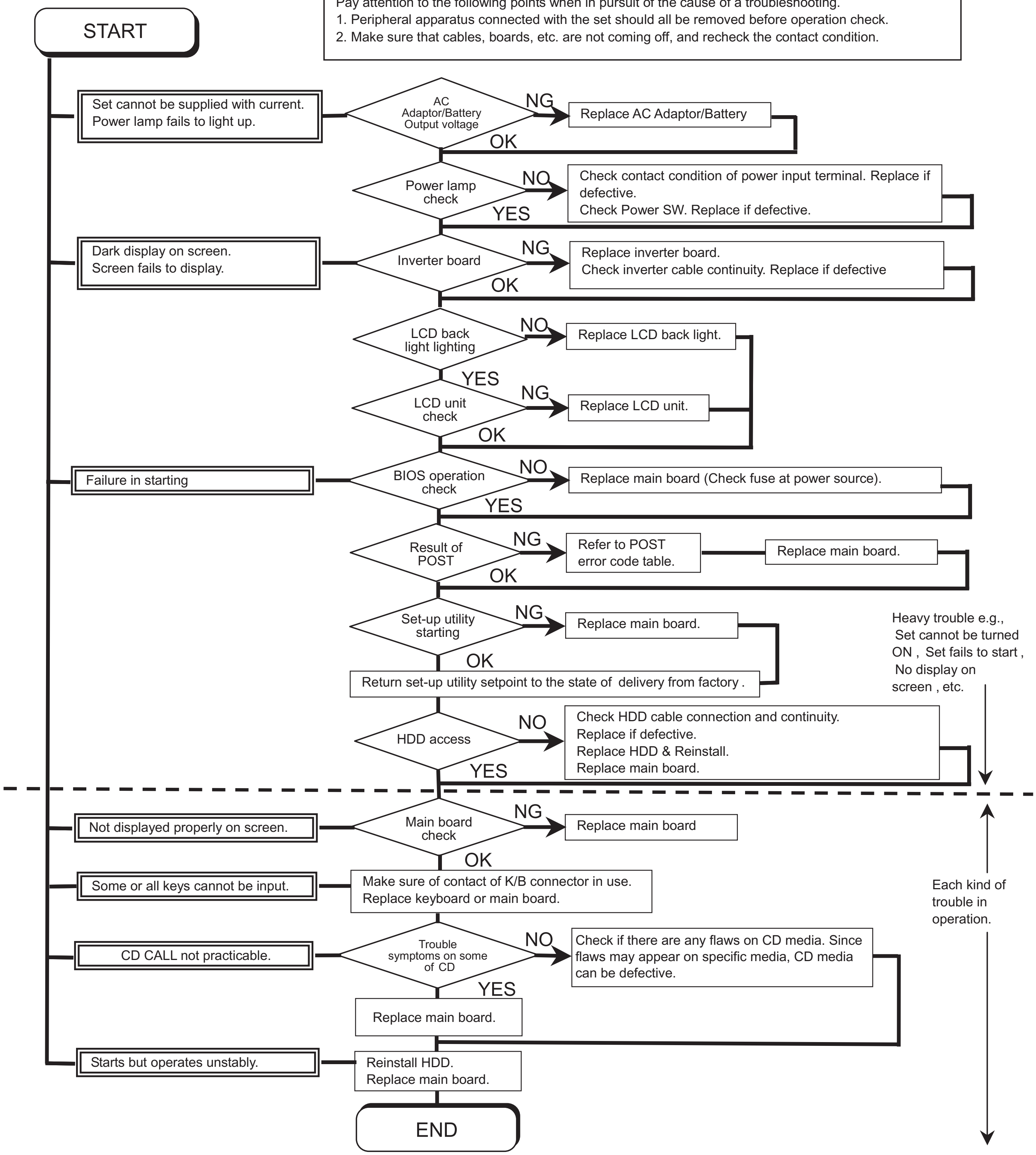


## 4.2. Troubleshooting

Please take note of the following two points with regard to troubleshooting:

1. Know-how of diagnosis upon occurrence of heavy troubles, e.g. Set cannot be turned ON , Set fails to start , No display on screen , etc.
2. Explanation of each trouble, mainly symptom of trouble in operation.

- **Flow Chart**



# 5 Power-On Self Test (Boot Check)

## Outline of POST

The set has a boot check function called POST (Power-On Self Test) in it.
The condition of the main body is diagnosed by checking beep sound or error code.

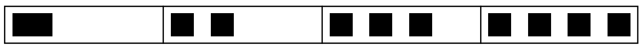
Start .............Test begins automatically when power switch is set to ON.

Normal finish .....After memory checking, a beep sound is issued once and the set is placed into automatic stop.

Note: If no error occurs, nothing is displayed. (No display of OK, etc.)

## Error Diagnosis by Checking Beep Signal Sound

The beep sound is as follows:


(1 (long sound) -2-3-4)

(Length of bar shows length of sound.)

■ = long sound (about 0.4 sec.), ■ = short sound (about 0.2 sec.), Length between sounds is about 0.1 sec.

**Table of errors classified by beep sounds**

| Diagnosis | Beep signal sound | Error message |
|---|---|---|
| Main board | 1(long sound)-2 | BIOS ROM error |
| | 1-2-2-3 | BIOS ROM error |
| | 1-3-1-1 | RAM error |
| | 1-3-1-3 | Keyboard controller error |
| | 1-3-4-1 | RAM error |
| | 1-3-4-3 | RAM error |
| | 1-4-1-1 | RAM error |
| | 2-1-2-3 | BIOS ROM error |
| | 2-2-3-1 | Occurrence of unexpected offering |

(Note) A beep sound is also issued in case of other I/O trouble.

# 6 List of Error Codes <Only when the port replicator is connected>

The following is a list of the messages that BIOS can display. Most of them occur during POST. Some of them display information about a hardware device, e.g., the amount of memory installed. Others may indicate a problem with a device, such as the way it has been configured. Following the list are explanations of the messages and remedies for reported problems.
If your system displays one of except the messages marked below with an asterisk (*), write down the message and contact Panasonic Technical Support. If your system fails after you make changes in the Setup menus, reset the computer, enter Setup and install Setup defaults or correct the error.

**0200 Failure Fixed Disk**
Fixed disk in not working or not configured properly. Check to see if fixed disk is attached properly. Run Setup. Find out if the fixed-disk type is correctly identified.

**0210 Stuck key**
Stuck key on keyboard.

**0211 Keyboard error**
Keyboard not working.

**0212 Keyboard Controller Failed**
Keyboard controller failed test. May require replacing keyboard controller.

**0213 Keyboard locked - Unlock key switch**
Unlock the system to proceed.

**0230 System RAM Failed at offset : *nnnn***
System RAM failed at offset *nnnn* of in the 64k block at which the error was detected.

**0231 Shadow RAM Failed at offset : *nnnn***
Shadow RAM failed at offset *nnnn* of the 64k block at which the error was detected.

**0232 Extended RAM Failed at offset : *nnnn***
Extended memory not working or not configured properly at offset *nnnn*.

**0250 System battery is dead - Replace and run SETUP**
The CMOS clock battery indicator shows the battery is dead. Replace the battery and run Setup to reconfigure the system.

***0251 System CMOS checksum bad - Default configuration used**
System CMOS has been corrupted or modified incorrectly, perhaps by an application program that changes data stored in CMOS. The BIOS installed Default SETUP Values. If you do not want these values, enter Setup and enter your own values. If the error persists, check the system battery or contact Panasonic Technical Support.

**0260 System timer error**
The timer test failed. Requires repair of system board.

**0270 Real time clock error**
Real-time clock fails BIOS test. May require board repair.

***0280 Previous boot incomplete - Default configuration used**
Previous POST did not complete successfully. POST loads default values and offers to run Setup. If the failure was caused by incorrect values and they are not corrected, the next boot will likely fail. On systems with control of **wait states**, improper Setup settings can also terminate POST and cause this error on the next boot. Run Setup and verify that the wait-state configuration is correct. This error is cleared the next time the system is booted.

**0281 Memory Size found by POST differed from EISA CMOS**
Memory size found by POST differed from EISA CMOS.

**02D0  System cache error - Cache disabled**
Contact Panasonic Technical Support.
**02F0: CPU ID:**
CPU socket number for Multi-Processor error.
**02F4:  EISA CMOS not writable**
ServerBIOS2 test error:  Cannot write to EISA CMOS.
**02F5:  DMA Test Failed**
ServerBIOS2 test error: Cannot write to extended DMA (Direct Memory Access) registers.
**02F6:  Software NMI Failed**
ServerBIOS2 test error: Cannot generate software NMI (Non-Maskable Interrupt).
**02F7:  Fail - Safe Timer NMI Failed**
ServerBIOS2 test error: Fail-Safe Timer takes too long.
***device* address Conflict**
Address conflict for specified *device*.
**Allocation Error for: *device***
Run ISA or EISA Configuration Utility to resolve resource conflict for the specified *device*.
**Failing Bits : *nnnn***
The hex number *nnnn* is a map of the bits at the RAM address which failed the memory test. Each 1 (one) in the map indicates a failed bit.  See error 230,231 or 232 for offset address of the failure in System, Extended or Shadow memory.
**Invalid System Configuration Data**
Problem with NVRAM (CMOS) data.
**I/O device IRQ conflict**
I/O device IRQ conflict error.
**Operating System not found**
Operating system cannot be located on either drive A: or drive C:.  Enter Setup and see if fixed disk and drive A: are properly identified.
**Parity Check 1 *nnnn***
Parity error found in the system bus.  BIOS attempts to locate the address and display it on the screen.  If it cannot locate the address, it displays ????.  Parity is a method for checking errors in binary data.  A parity error indicates that some data has been corrupted.
**Parity Check 2 *nnnn***
Parity error found in the I/O bus.  BIOS attempts to locate the address and display it on the screen.  If it cannot locate the address, it displays ????.
**Press <F1> to resume, <F2> to Setup**
Displayed after any recoverable error message.  Press <F1> to start the boot process or <F2> to enter a Setup and change the settings. Write down and follow the information shown on the screen.

# 7 Self Diagnosis Test

As for the self-diagnosis test(PC-Diagnostic utility) to use this model, a standard test and the enhancing test by the module of the main body building in are possible.

●Notes To skip BIOS password

Use <Ctrl>+<F10> key to skip BIOS password or authentication of fingerprint.
This key is only for entering DIAG mode. Not available to boot the computer.
If customer set "HDD Lock", the DIAG program cannot perform HDD test.
*This key is for service purpose only. Do not disclose this information to unrelated others.

## 1. Beginning of self-diagnosis test

### 1-1. Setting of content of setup

1. The power supply of the computer is turned on.
2. " F2 " is pushed on the screen of "Panasonic" while " press <F2 to enter Setup> " is displayed.
3. The setup utility starts and then takes notes of the content of the BIOS setup of present set.
4. " F9 " is pushed, " Yes" is selected on the screen of " Is the default value loaded? ", and " Enter" is pushed.
5. " F10 " is pushed.
6. " Yes" is selected on the screen of the setup confirmation, and " Enter" is pushed.
7. The computer starts automatically.

Attention

・If the device which can be set is set to "Invalidity" by "Advanced" or "Security" menu, becomes an error by "PC-Diagnostic utility".
(It is judged that the device which can be set to "Invalidity" by "Main" menu such as "Flat pad" is normal if the controller operates normally though sets to "Invalidity" by the setup. )
・In the model with built-in DVD of the USB connection, even if DVD is normal, becomes an error if legacy USB is set to "Invalidity"

### 1-2. When you execute an automatic test

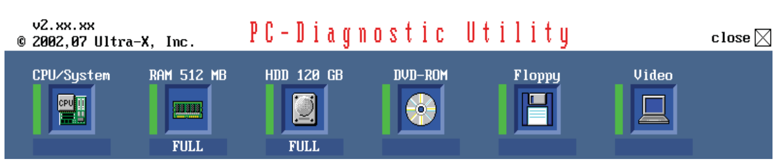
1. "Ctrl" + "F7" is pushed while the "Panasonic" start screen is displayed after the computer is started.
2. The test of all devices begins automatically by "PC-Diagnostic utility" 's starting.

Attention

・It is a test which the customer who bought PC can execute. (As for HDD, the enhancing test is also possible.)
・A flat pad does not work for a while after starting "PC-Diagnostic utility".
・The movement of a flat pad might become abnormal If after RAM begins from the CPU/System test, a flat pad will be operated in about 30 seconds. In that case,restarts pushing"Alt" + "Ctrl" + "Del" key. Or, please start "PC-Diagnostic utility" again after doing the power supply switch in the slide, and turning off the power supply.

### 1-3. When you execute the enhancing test

1. Please let me discontinue diagnosing clicking ▢ to end an automatic test.
2. Please click on the character of "D" "PC-Diagnostic utility" on the screen while pushing both of right "Shift" and left "Shift" keys.




3. All devices which can select the enhancing test make the setting of the enhancing test possible.
4. The district device is made"FULL" display (enhancing test).
5. The test begins clicking ▷ .

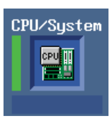
*Please refer to item 4 for the error result of each test and the division of the breakdown part.

## 2. Operation of PC-Diagnostic Utility

-Only the device which can be inspected on the entire screen is displayed.
-The item does not appear when the device of wireless LAN etc. is not physically connected.
-The movement of the item must use an arrow key or a flat pad.




-As for the device under the diagnosis, blue and yellow are alternately displayed at the left of the icon.
- The diagnosis result of the device greens at the left of the icon when it is normal, and becomes red when abnormal.




-When the test of all devices ends, the test result is displayed under the right of the screen.




-Please click  while diagnosing when being stop on the way by the time the test of all devices ends.
-Please click  when you restart "PC-Diagnostic utility".
*Each device is tested from the beginning, and it is not possible to restart on the way.
-When the test of all devices ends, the test result is displayed under the right of the screen.

## 2-1. Selection of tested device

-To test only a specific device, "Test" and "Do not test" of each device can be selected.
-The device which can select the enhancing test changes in order of "The standard is tested" and "Do not test" whenever the device icon is clicked.



Start the standard test



Do not test

Please begin testing clicking ▷ if the selection of the tested device ends.

## 2-2. "PC-Diagnostic utility" End method

When ⊠ of "Close" on the right of the screen is clicked, the computer reactivates automatically. Or, the power supply switch is done in the slide and the power supply is turned off.

## 2-3. The content of the setup is returned to the setting of the user

1. Turned on the computer.
2. "F2" is pushed on the screen while "Press<F2>to enter Setup" is displayed of "Panasonic".
3. Push "F10", and on the screen of "Is the change in the setting preserved and do end?"and then "Yes" is selected, and "Enter" is pushed.
4. The computer reactivates automatically.
5. The end option is chosen by the start menu, and the power supply of the computer is turned off.

Standard at test time
All devices other than RAM and HDD ---------- about 1 minute
RAM standard test ----------------------------------- 1 - 2 minutes
HDD standard test ----------------------------------- 2 - 3 minutes
HDD enhancing test (60GB) ---------------------- about 40 minutes

Ex.The standard when the standard <all device> is tested becomes 1+2+3=6 minutes.

- ■ There is greatly a difference from RAM test when the memory is increased according to the performance of the memory occasionally.
- ■ Moreover, when the main body of PC under the test is a high temperature, it occasionally takes time.
- ■ There is greatly a difference from HDD according to the performance of the drive occasionally.

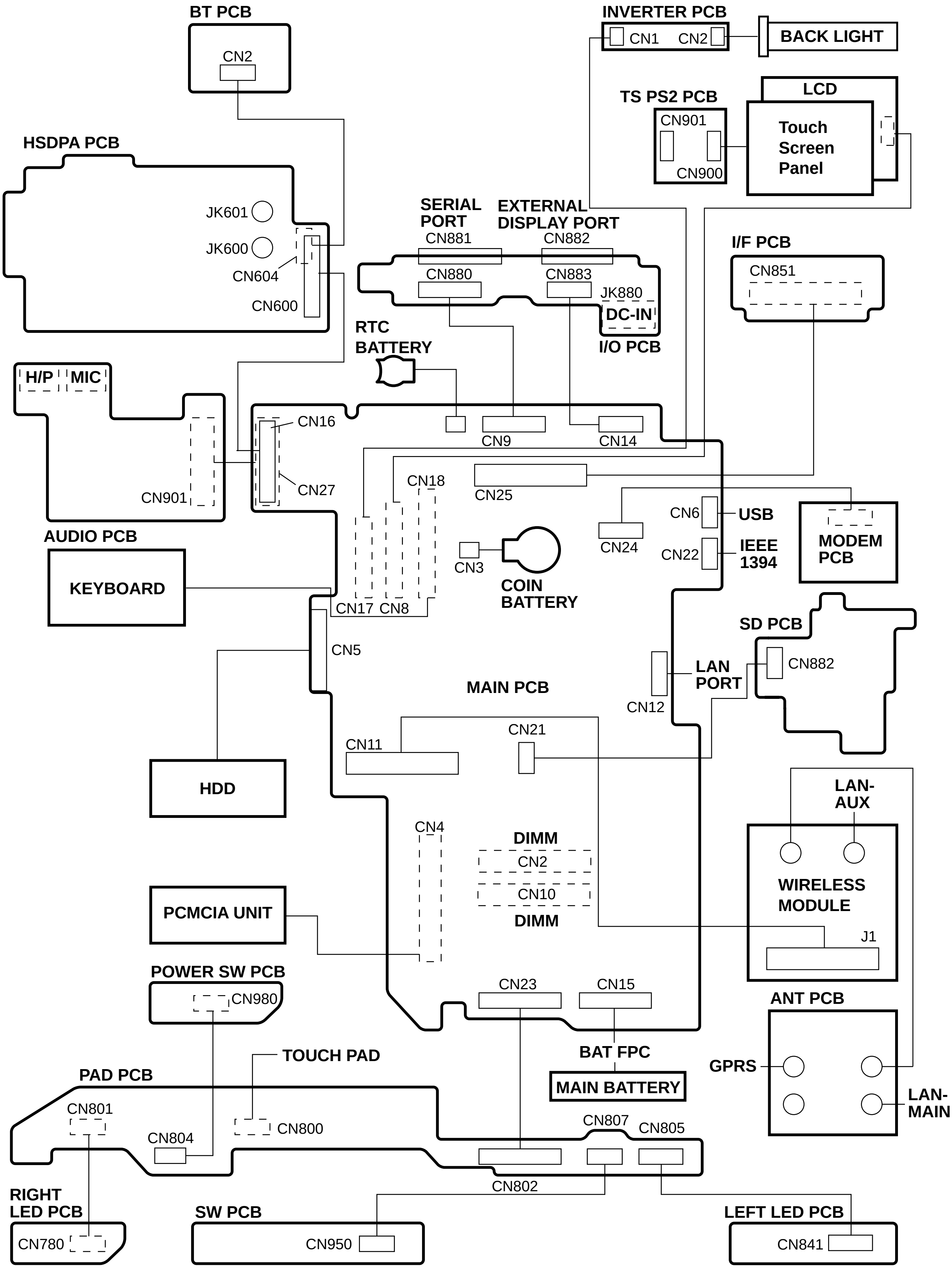
## 3. Test Item and Division of trouble

| Test item | Stanard | Enhan-cing | Content of standard test | Content of enhancing test | Place with possibility of breakdown |
|---|---|---|---|---|---|
| CPU / SYSTEM | ○ | — | CPU is shifted to protected mode, and "Violation of the paging", "Operation of the violation of a privileged instruction", and DMA, INT, TIMER, and the RTC operation are confirmed. | — | CPU / Main board |
| RAM | ○ | — | All memory space is tested in a special memory access pattern based on "R.S.T . technology". | — | Memory / Mainboard |
| HDD | ○ | ○ | The record area frequently accessed with Microsoft Windows XP to test in about two minutes regardless of points of HDD is emphatically tested. | All record area is tested. | HDD / Mainboard / Cable / Connector |
| MODEM | ○ | — | It is confirmed not to find abnormality in the AC97 modem controller. | — | MODEM/ Mainboard |
| Wireless LAN | ○ | — | It is confirmed not to find abnormality in the Wireless LAN modem controller. | — | Wireless LAN board / Connector / Mainboard |
| Sound *5 | ○ | — | | | |
| USB | ○ | ○ *1 | It is confirmed not to find abnormality in the USB controller. | It is confirmed not to find abnormalityin the wiring between the USB controller and the connector by confirming the connection of the USB equipment connected with the USB connector. | Mainboard / Connector |
| LAN | ○ | ○ *2 | It is confirmed not to find abnormality in the LAN controller. | It is confirmed not to find abnormalityin the wiring between the controller and the connector by connecting to HUB with LAN cable. | Mainboard / Connector |
| PC Card | ○ | — | It is confirmed not to find abnormality in the CardBus controller. | — | Mainboard |
| SD | ○ | — | It is confirmed not to find abnormality in the SD controller. | — | Mainboard |
| Keyboard | ○ | ○ *3 | It is confirmed not to find abnormality in keyboard controller's keyboard interface. | The key is actually input, and the operation is displayed on the screen. | Mainboard / Keyboard |
| Touch Pad | ○ | ○ *4 | Whether keyboard controller's mouse interface operates normally is confirmed. | The operation is actually displayed on the screen by operating the touch pad. | Mainboard / Touch Pad |
| DVD-ROM | ○ | ○ *6 | The drive is normally reset, and it is accessible is confirmed. | It is confirmed to be able to read media normally. | Mainboard / DVD Drive / DVD Cable / DVD Connector |

| Test Item | Standard | Enhanced | Content of Standard Test | Content of Extend Test | The place with possibility of breakdown |
|---|---|---|---|---|---|
| Touch Screen | ○ | ○ | It is confirmed not to find abnormality in the USB connection of Touch Screen. This test cannot find abnormality of Touch Screen. | Perform Touch Screen functionality practically. Operator has to judge PASS/FAIL with test result. | Main board/ Touch Screen |
| Bluetooth | ○ | | It is confirmed not to find abnormality in the connection of Main board and Bluetooth module. | — | Bluetooth cable |
| Wireless WAN | ○ | — | It is confirmed not to find abnormality in the connection of Main board and Wireless WAN module. | — | WWAN cable |
| Floppy | ○ | — | It is confirmed not to find abnormality in the legacy FD drive. This test cannot find abnormality of mechanical breakdown. (e.g.. Head, Motor) | — | FD Drive/ Main board (Super I/O)/ FDD cable FDD connector |
| Video | ○ | — | It is confirmed not to find abnormality in access to VRAM with VESA. The PC which uses main memory as VRAM may fail with main memory failure. | — | Main board (Chipset, Graphic Controller)/ Memory |
| GPS | ○ | — | It is confirmed not to find abnormality in the connection of Main board and GPS | — | GPS cable |
| IEEE1394 | ○ | — | It is confirmed not to find abnormality in the IEEE1394 controller. | — | Main board (IEEE1394 Controller) |
| Express Card | — | ○ | — | It is confirmed not to find abnormality in the wiring between Chipset and Express Card. | Main board (Chipset)/ Express Card Connector |
| Smart Card | ○ | — | It is confirmed not to find abnormality in the Smart Card controller. | — | Main board (Smart Card Controller) |
| Serial Port | ○ | ○ *7 | It is confirmed not to find abnormality of Super I/O UART function. This test cannot find lack of wiring between Super I/O and Serial Connector. | It is confirmed not to find abnormality in the wiring between Super I/O and Serial Connector. This test cannot find failure of cable characteristic and device problems. | Main board (Super I/O)/ Serial Connector |
| Parallel Port | ○ | ○ *8 | It is confirmed not to find abnormality of Super I/O parallel function. This test cannot find lack of wiring between Super I/O and Parallel Connector. | It is confirmed not to find abnormality in the wiring between Super I/O and Parallel Connector. This test cannot find failure of cable characteristic and device problems. | Main board (Super I/O)/ Parallel Connector |

*1 Please connect the USB device with the port (USB connector) which wants to test before the tests.
*2 Please connect LAN port with LAN HUB with LAN cable before the tests.
*3 The operator actually inputs the key, and the operator judges PASS/FAIL of the test.
*4 The operator actually operates the mouse, and the operator judges PASS/FAIL of the test.
*5 It is not abnormal though the sound is emitted from the speaker while testing.
※ When the test result is PASS, trouble is thought by not hearing of the sound under the test from the speaker and the headphone by the wiring of the audio output system.
*6 Please set DVD/CD media in the drive before the tests.
*7 Please set a Special Loop Back Connector Tool at serial connector for Enhanced Test.
(This Connector Tool is same as the one used before.)
*8 Please set a Special Loop Back Connector Tool at parallel connector for Enhanced Test.
(This Connector Tools is same as the one used before.)

# 8 Wiring Connection Diagram



# 9 Disassembly/Reassembly

**Note:**

**Power off the computer. Do not shut down to the Suspend or hibernation mode.**
**Do not add peripherals while the computer is in the Suspend or hibernation mode; abnormal operation may result.**

## 9.1. Disassembly Instructions

### 9.1.1. Preparation

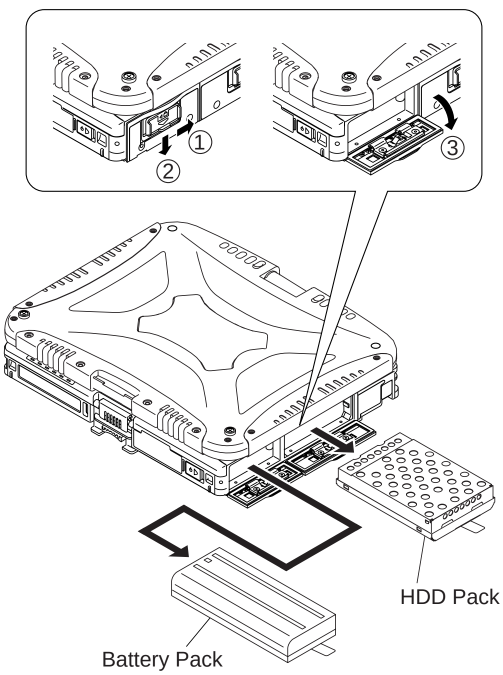
Before disassembling, be sure to make the following preparations.

ï Shut down Windows and turn off the power.
ï Disconnect the AC adaptor.
ï Remove the optional DIMM memory card and PCMCIA card if they are connected.
ï Remove other devices if they are connected.

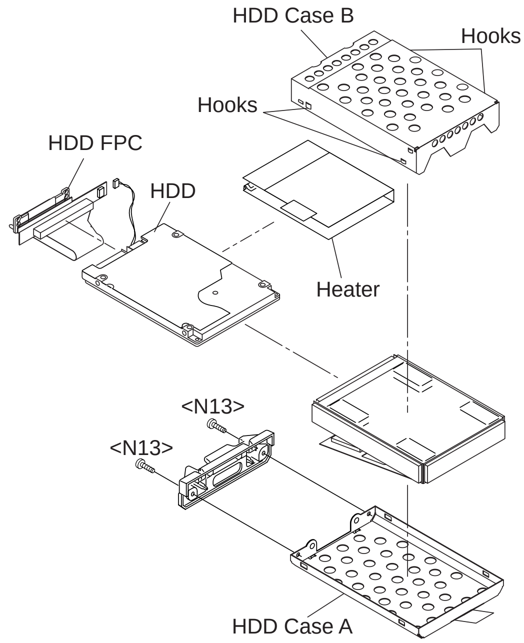
**Attention:**

ï Please execute writing BIOS ID when you exchange the Main Board.
ï Parts (Sheet and rubber) etc. related various the Conductive Cloth and Heat Spreader cannot be recycled. Use new parts.

### 9.1.2. Removing the Battery Pack and HDD Pack



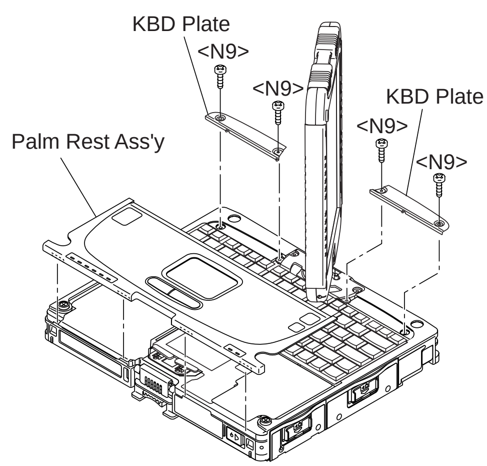

1. Open the Battery Cover.
2. Remove the Battery Pack.
3. Open the HDD Cover.
4. Remove the HDD Pack.



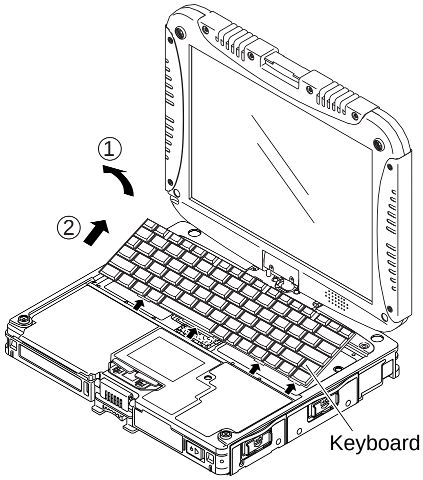

5. Remove the two Screws <N13>.
6. Remove the HDD Case A and the HDD Case B.
7. Remove the HDD

Screws <N13> : DXQT2+D4FNL

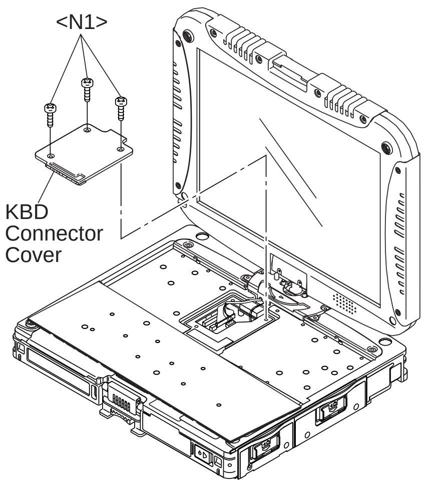
### 9.1.3. Removing the Touch Pad and Keyboard



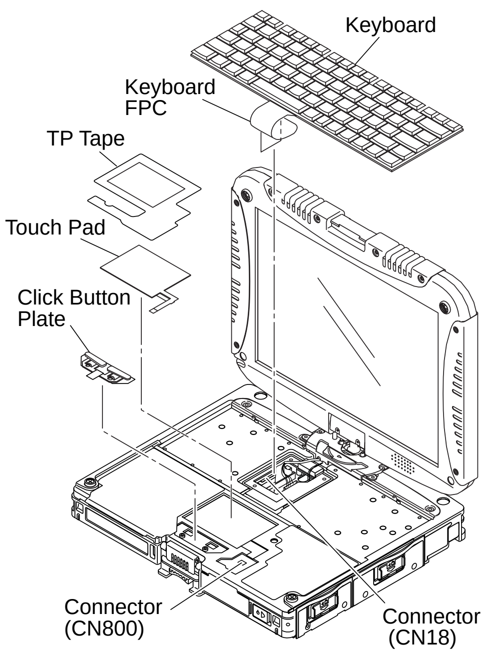

1. Remove the Palm Rest Ass'y.
   **Note:**
   The Palm Rest Ass'y is firmly fixed with two-sided tape.
   Carefully remove the Palm Top Cover Sheet not to damage it.
2. Remove the 4 Screws <N9>.
3. Remove the KBD Plate.




4. Lift the far side of the Keyboard and slide it to backward, and then turn the Keyboard over frontward.



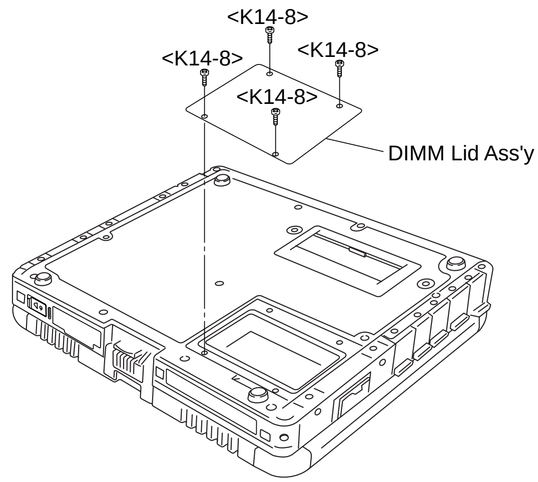

5. Remove the 3 Screws <N1>.
6. Remove the KBD Connector Cover.




7. Disconnect the Cable from Connector (CN18).
8. Remove the Keyboard.
9. Remove the TP Tape.
10. Disconnect the Cable from Connector (CN800).
11. Remove the Touch Pad and Click Button Plate.

Screws <N1> : DFHE5025XA
Screws <N9> : DRSB2+5FKL

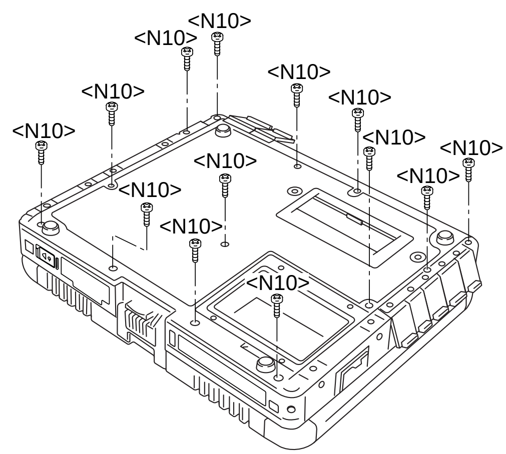
### 9.1.4. Removing the DIMM Lid Assíy




1. Remove the 4 Screws <K14-8>.
2. Remove the DIMM Lid Ass'y.

Screws <K14-8> : DRHM5025YAT

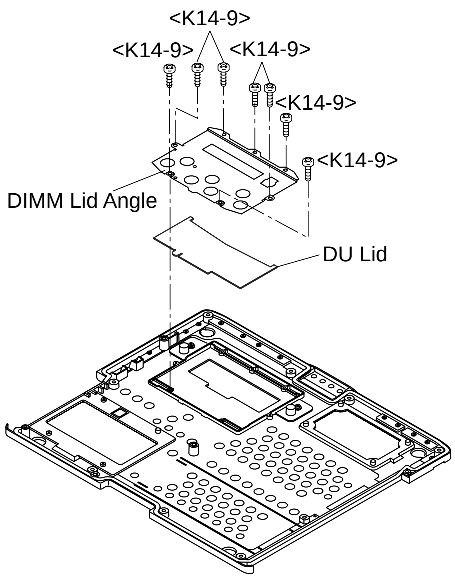
### 9.1.5. Removing the Rear Cabinet




1. Remove the 13 Screws <N10>.
2. Open the LID Rubbers.
3. Remove the Rear Cabinet.

Screws <N10> : DRHM0061ZA

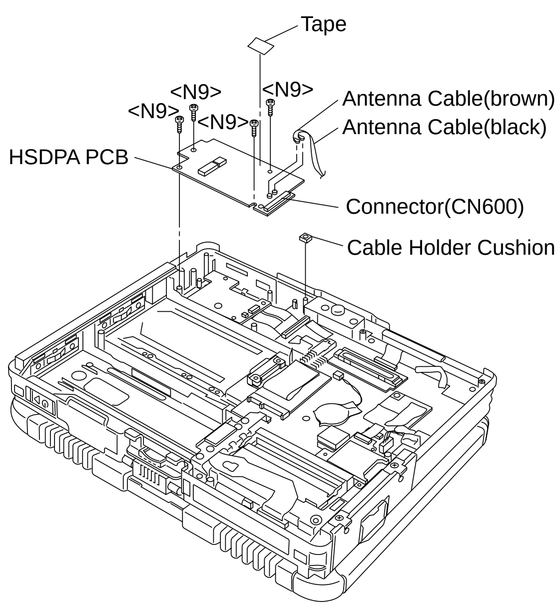
### 9.1.6. Removing the DU Lid Unit



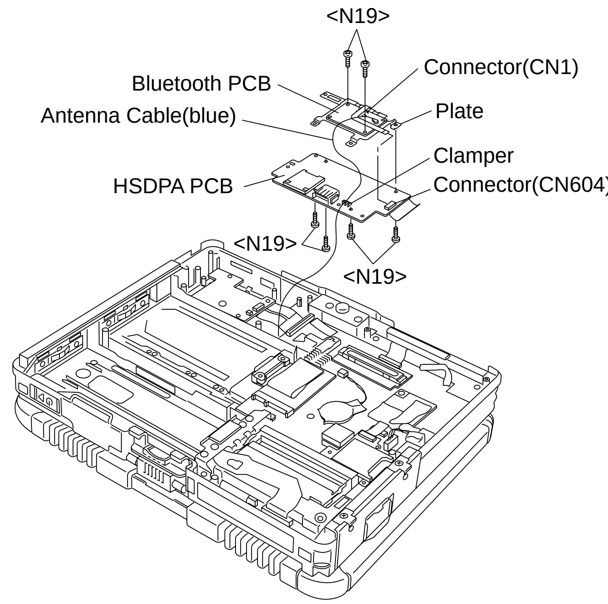

1. Remove the 7 Screws <K14-9>.
2. Remove the DU Lid Angle and DU Lid.

Screws <K14-9> : DXQT2+D25FNL

### 9.1.7. Removing the HSDPA PCB and Bluetooth PCB



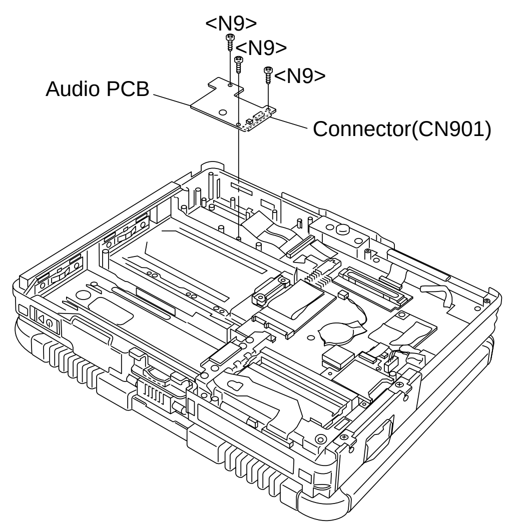

1. Remove the Cable Holder Cushion.
2. Disconnect the 2 Antenna Cables (brown, black).
3. Remove the Tape.
4. Remove the 4 Screws. <N9>
5. Disconnect the Cable from the Connector (CN600).




6. Disconnect the Antenna Cable from the Clamper.
7. Disconnect the Antenna Cable.
8. Remove the 4 Screws. <N19>
9. Disconnect the Cable from the Connector (CN604).
10. Remove the 2 Screws. <N19>
11. Disconnect the Cable from the Connector (CN1) and remove the Bluetooth PCB and HSDPA PCB.

Screws <N9> : DRSB2+5FKL
Screws <N19> : XSB2+3FNL

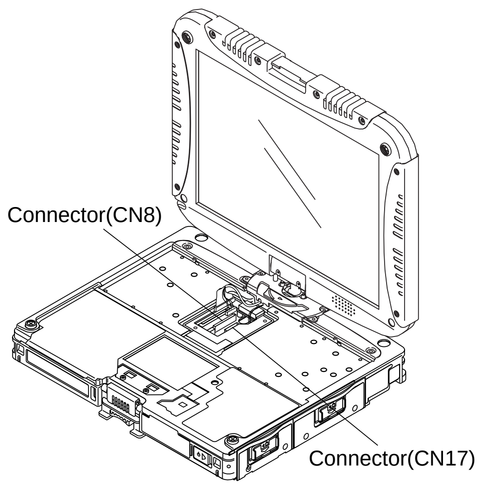
### 9.1.8. Removing the Audio PCB




1. Remove the 3 Screws <N9>.
2. Disconnect the Cable from a Connector (CN901).
3. Remove the Audio PCB.

Screws <N9>:DRSB2+5FKL

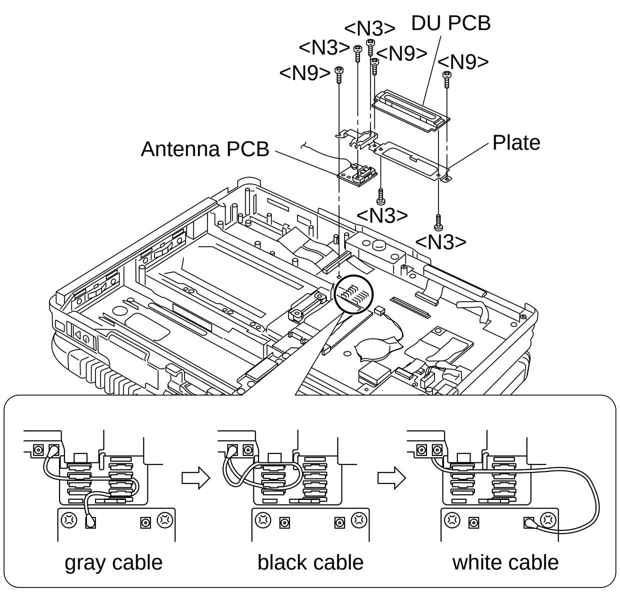
# 9.1.9. Removing the Main PCB, Wireless Module, SD PCB, Antenna PCB and Modem PCB



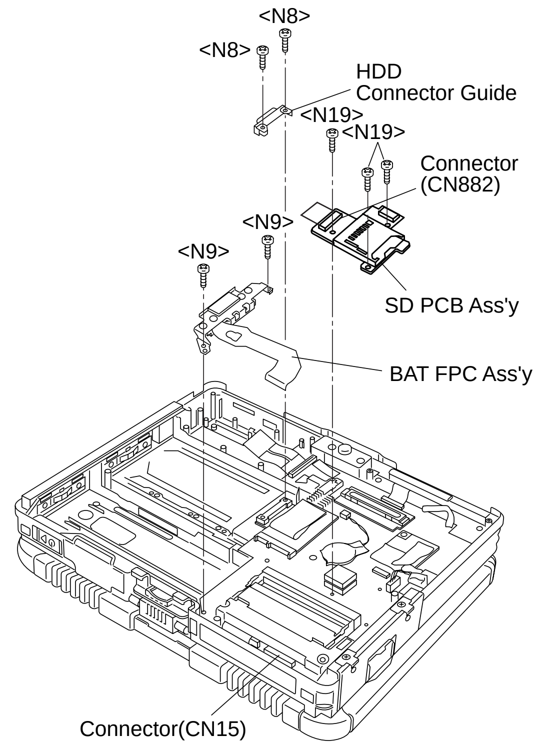

**Note:**

This procedure is not necessary if the computer is not equipped with Wireless Module or Modem PCB.

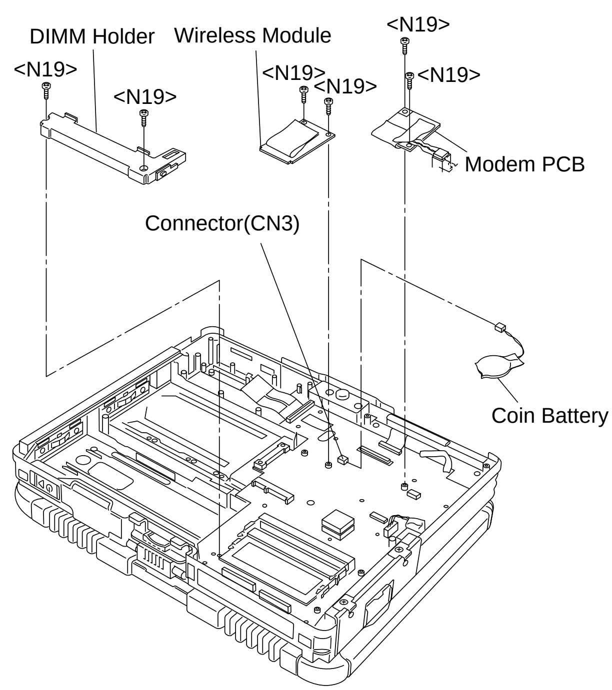
1. Disconnect the 2 LCD Cables. (CN8,CN17)




2. Remove the gray, black and white Antenna Cables.
3. Remove the 2 Screws <N3> and the 3 Screws <N9>.
4. Remove the 2 screws <N3>, and remove the DU PCB, Plate and Antenna PCB.

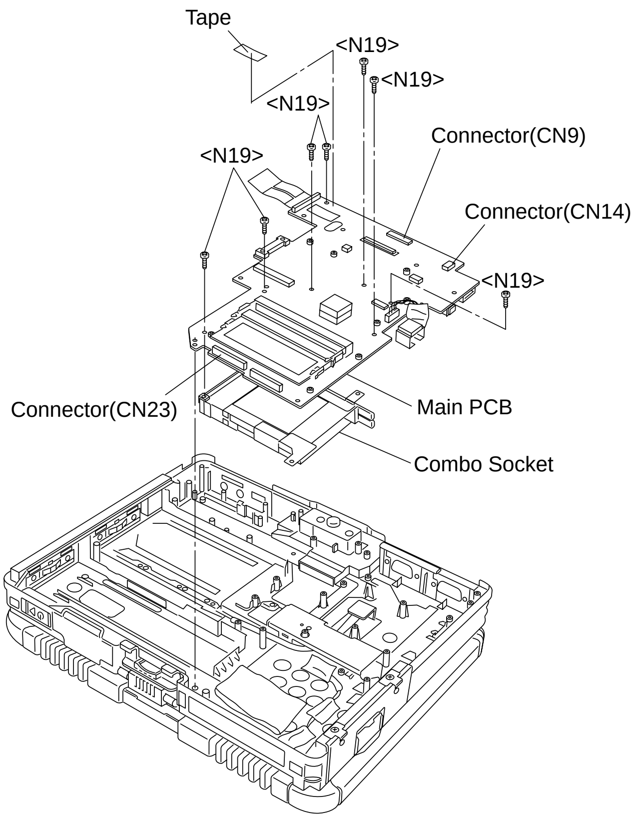



5. Remove the 2 Screws <N8>, and remove the HDD Connector Guide.
6. Remove the 2 Screws. <N9>
7. Disconnect the Cable from the Connector. (CN15)
8. Remove the BAT FPC Ass'y.
9. Remove the 3 Screws. <N19>
10. Disconnect the Cable from the Connector (CN21), and remove the SD PCB Ass'y.




11. Disconnect the Cable from the Connector (CN3), and remove the Coin Battery.
12. Remove the 2 Screws <N19>, and remove the Wireless Module.
13. Remove the 2 Screws <N19>, and remove the Modem PCB.

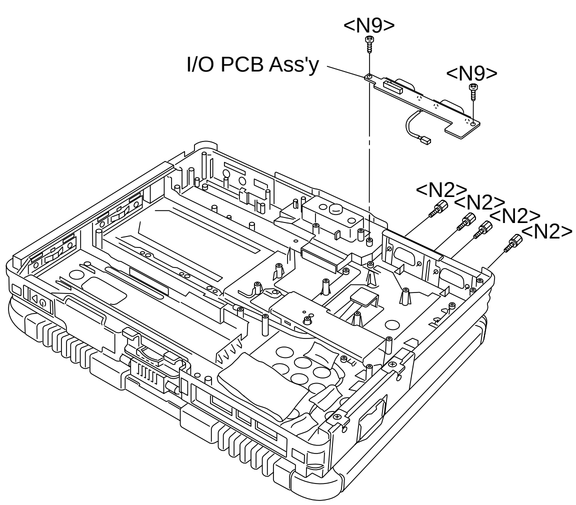
14. Remove the 2 Screws <N19>, and remove the DIMM Holder.




15. Remove the Tape.
16. Disconnect the 3 Cables from the 3 Connectors. (CN9,CN14,CN23)
17. Remove the 7 Screws <N19>, and remove the Main PCB and Combo Socket.

Screws <N3> : DFHE5108ZA
Screws <N8> : DRSB2+10FKL
Screws <N9> : DRSB2+5FKL
Screws <N19> : XSB2+3FNL

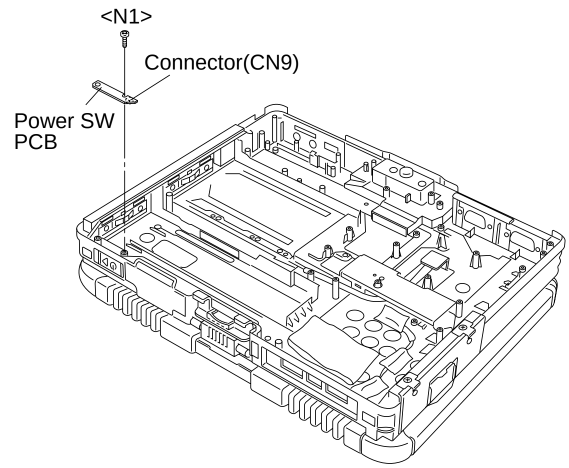
### 9.1.10. Removing the I/O PCB Ass'y




1. Remove the 4 D-SUB Screws <N2>.
2. Remove the 2 Screws <N9>.
3. Remove the I/O PCB Ass'y.

Screws <N2> : DFHE5058ZB
Screws <N9> : DRSB2+5FKL

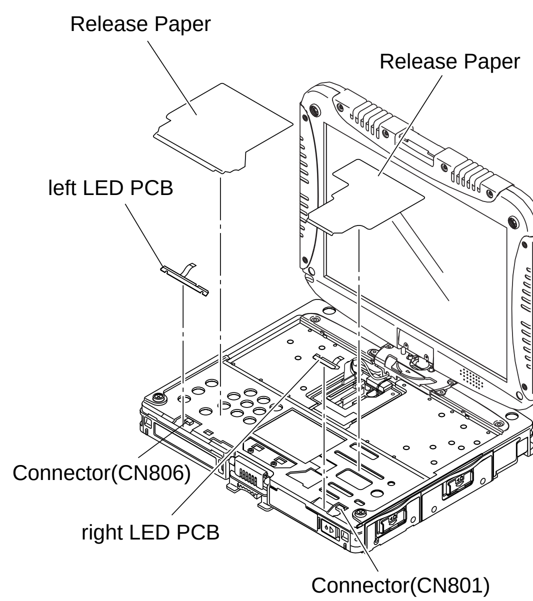
### 9.1.11. Removing the Power SW PCB




1. Remove the Screw <N1>.
2. Disconnect the Cable from the Connector (CN9).
3. Remove the Power SW PCB.

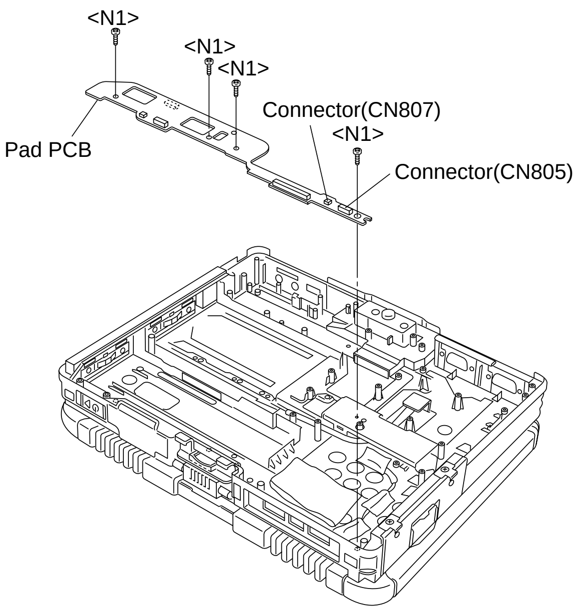
Screw <N1> : DFHE5025XA

### 9.1.12. Removing the left LED and right LED PCB

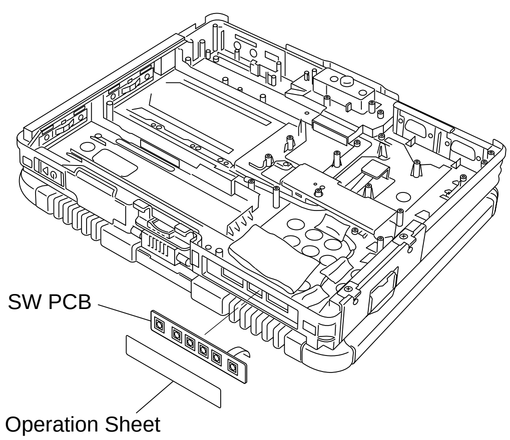



1. Remove the two Release Papers.
2. Disconnect the Cable from the Connector (CN806).
3. Remove the left LED PCB.
4. Disconnect the Cable from the Connector (CN801).
5. Remove the right LED PCB.

## 9.1.13. Removing Pad PCB and SW PCB



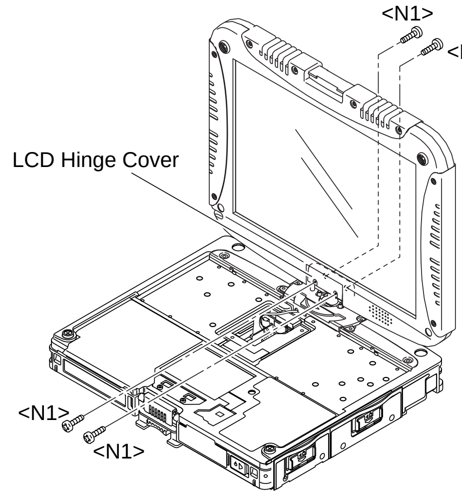

1. Disconnect the 2 Cables from the 2 Connectors (CN805,CN807).
2. Remove the 4 Screws <N1>.
3. Remove the Pad PCB.



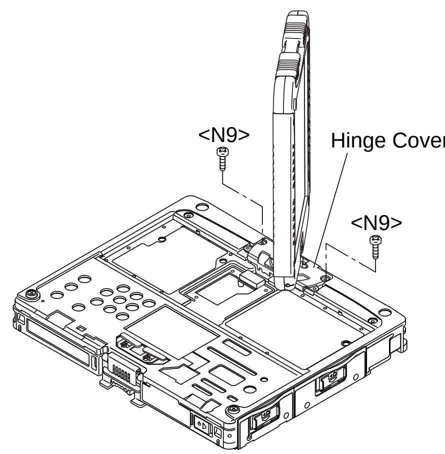

4. Remove the Operation Sheet and the SW PCB.

Screws <N1> : DFHE5025XA

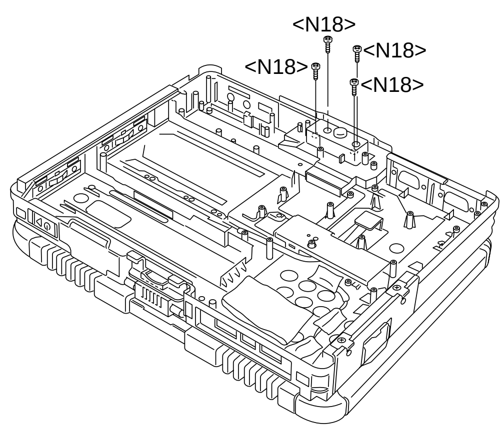
## 9.1.14. Removing the Display unit




1. Remove the 4 Screws <N1>.
2. Remove the LCD Hinge Cover.



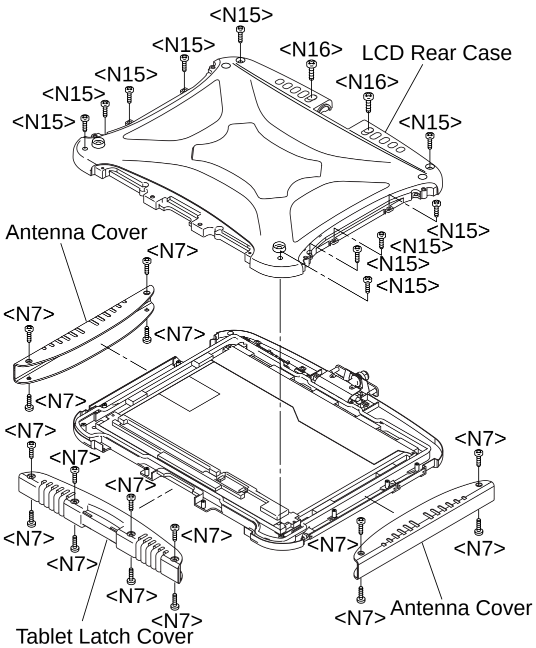

3. Display unit is half-rotated and removes the 2 Screws <N9>.




4. Remove the 4 Screws <N18>.
5. Turn the computer over.
6. Remove the Display Unit.

Screws <N1> : DFHE5025XA
Screws <N9> : DRSB2+5FKL
Screws <N18> : DXYN4+J7FNL

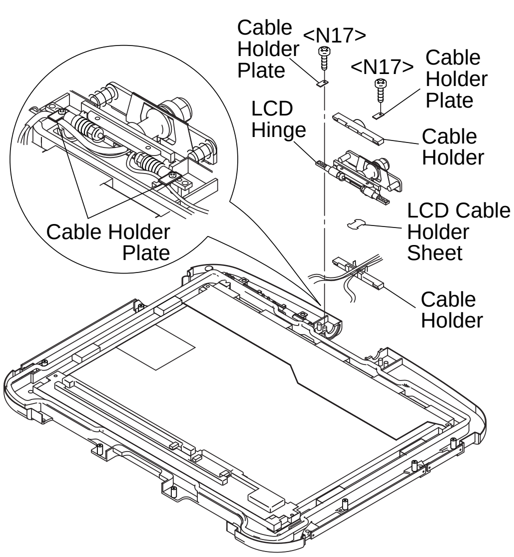
## 9.1.15. Removing the LCD Rear Case




1. Remove the 8 Screws <N7> on the front side of Display unit.
2. Remove the 8 Screws <N7> on the back side of Display unit.
3. Remove 2 Antenna Covers and Tablet Latch Cover.
4. Remove the 10 Screws <N15>.
5. Remove the 2 Screws <N16>.
6. Remove the LCD Rear Case.

Screws <N7> : DRQT26+E5FKL
Screws <N15> : DXYN2+J6FNL
Screws <N16> : DXYN3+J10FNL

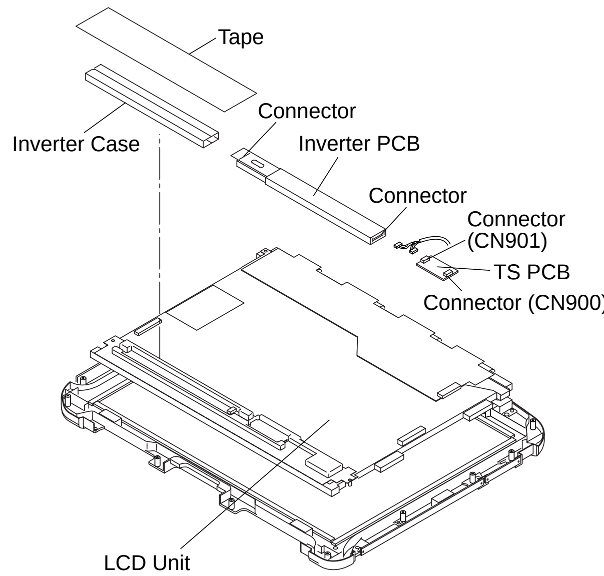
## 9.1.16. Removing the LCD Hinge




1. Remove the Cable Holder.
2. Remove the 2 Screws <N17>.
3. Remove the Cable Holder Plate and LCD Hinge.

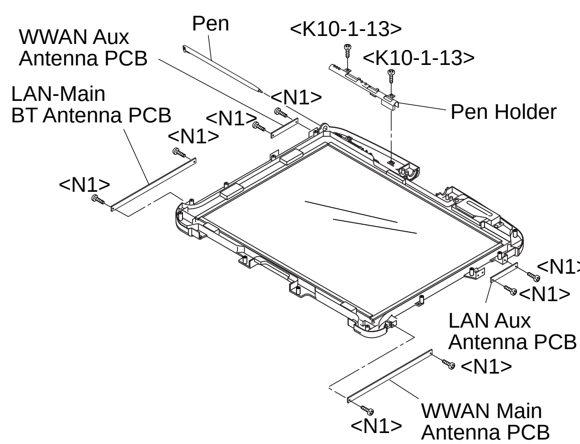
Screws <N17> : DXYN3+J8FNL

## 9.1.17. Removing Inverter PCB and LCD Unit




1. Disconnect the 2 Cables from 2 Connectors (CN1,CN2).
2. Remove the Inverter Case and Inverter PCB.
3. Disconnect the 2 Cable from 2 connector (CN900,CN901).
4. Remove the TS PS2 PCB, then remove the LCD unit.

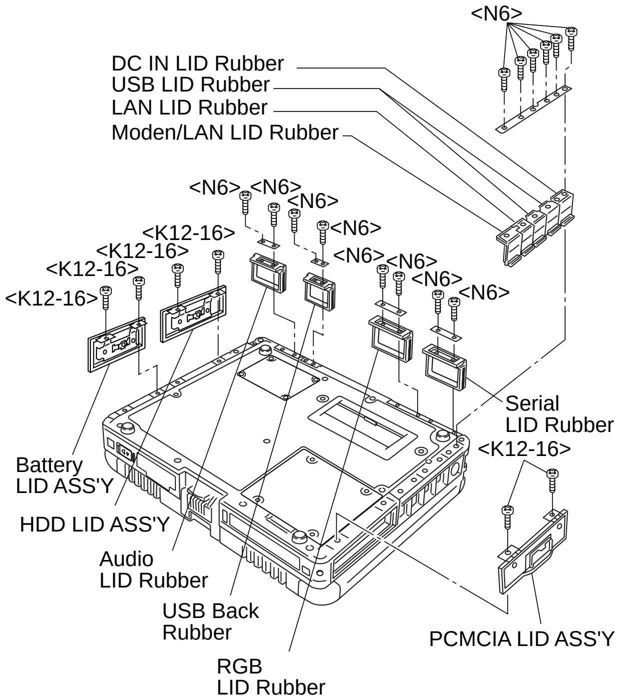
## 9.1.18. Removing WWAN Main Antenna PCB, LAN-Main BT Antenna PCB, LAN AUX Antenna PCB and WWAN AUX Antenna PCB




1. Remove the 2 Screws <N1>.
2. Remove the WWAN Main Antenna PCB.
3. Remove the 2 Screws <N1>.
4. Remove the LAN-Main BT Antenna PCB.
5. Remove the 2 Screws <N1>.
6. Remove the LAN AUX Antenna PCB.
7. Remove the 2 Screws <N1>.
8. Remove the WWAN AUX Antenna PCB.
9. Remove the Pen
10. Remove the two Screws <N6>.
11. Remove the Pen Holder.

Screws <N1> : DFHE5025XA
Screws <N6> : DRHM5025YA

## 9.1.19. Removing the Each Cover




1. Remove the 14 Screws <N6>.
2. Remove the Modem/LAN LID Rubber, LAN LID Rubber, USB
   LID Rubber, DC IN LID Rubber, Serial LID Rubber, RGB LID Rubber, Audio LID Rubber and USB Back Rubber.
3. Remove the Rear Cabinet.
   (Refer to 7.1.5 Removing the Rear Cabinet)
4. Remove the 6 Screws <K12-16>.
5. Remove the Battery LID ASS'Y, HDD LID Ass'y and PCMCIA LID Ass'y.

Screws <K12-16> : DRQT26+D3FKL
Screws <N6> : DRHM5025YA

## 9.2. Reassembly Instructions

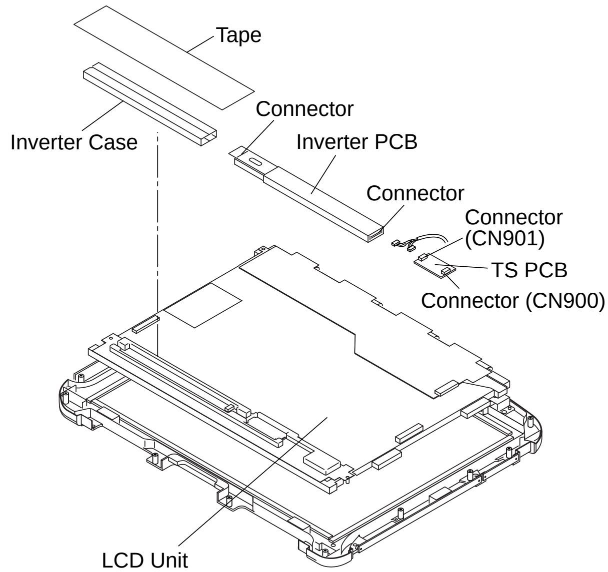
### 9.2.1. Attention when CF-19 series is repaired

ï Please execute writing BIOS ID when you exchange the Main Board.

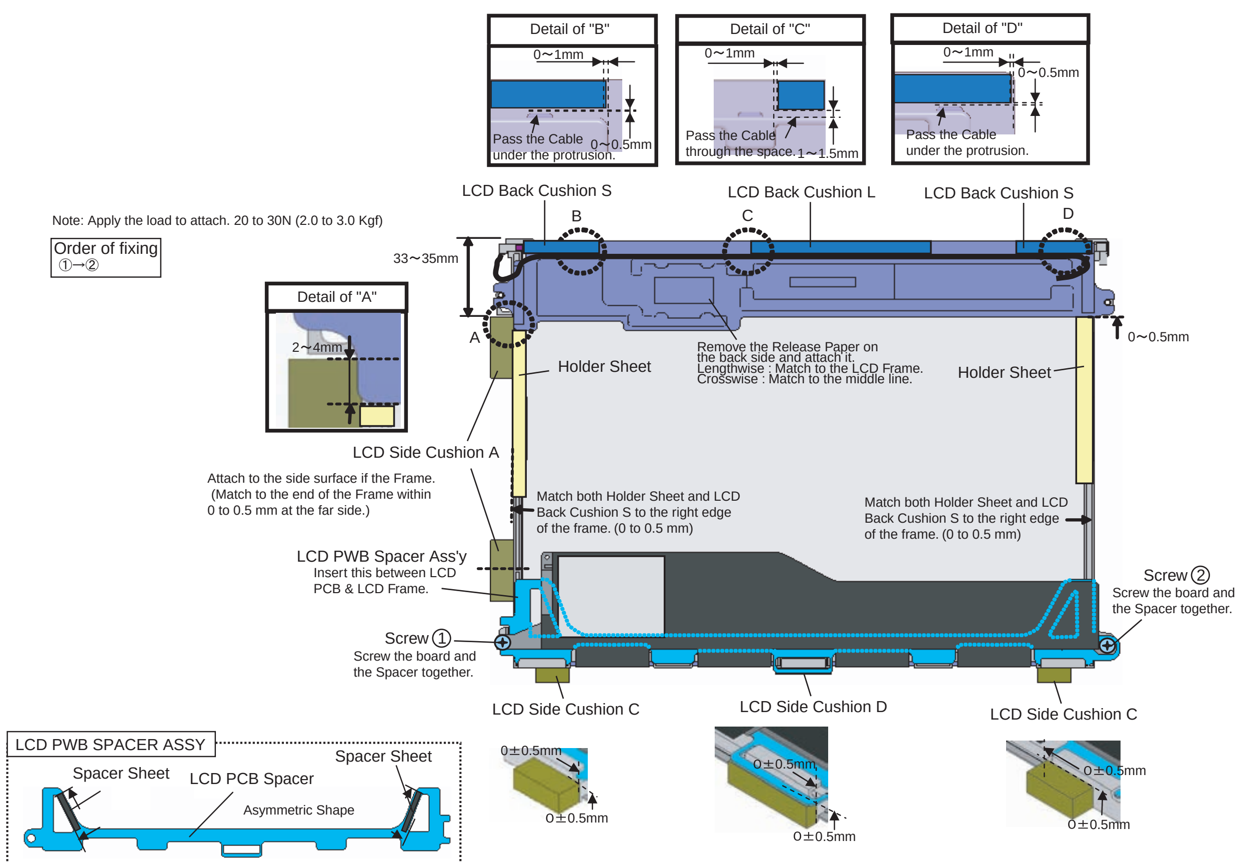
ï Parts (Sheet and rubber) etc. related various the Conductive Cloth and Heat Spreader cannot be recycled. Use new parts.

### 9.2.2. Setting up the Inverter Ass'y and LCD UNIT

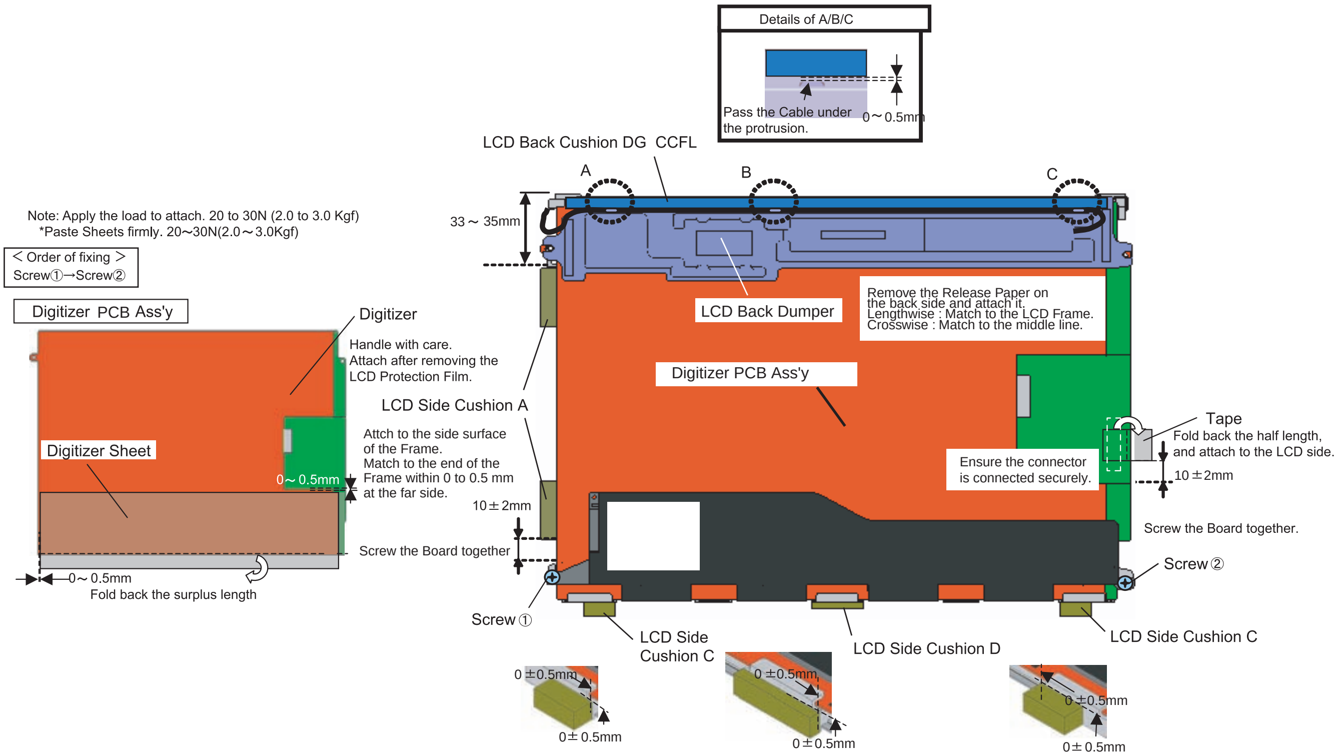
1. Set the LCD UNIT to the LCD Front Cabinet/TS Panel.
2. Set the TS PCB on the LCD Back Damper, and connect the 2 Cables to the Connectors (CN900 and CN901).
3. Set the Inverter PCB to the LCD Back Damper, and connect the 2 Cables to the Connectors.



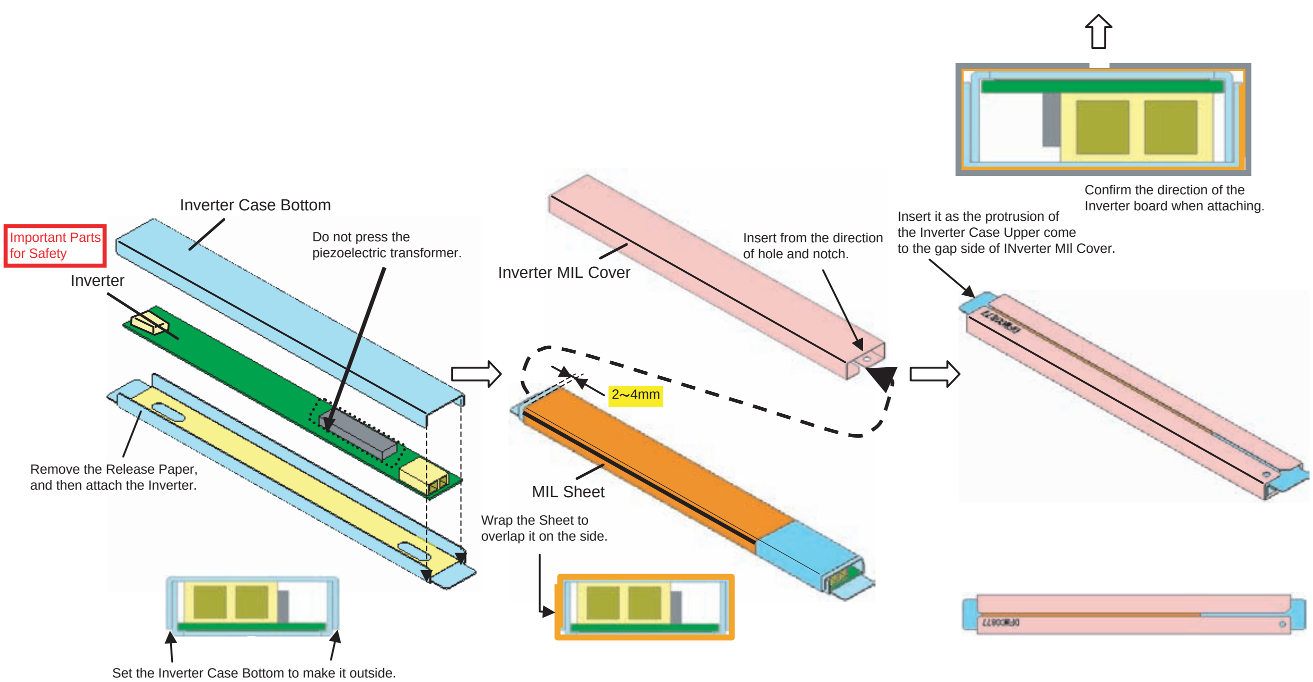

■ **Assembly of LCD Back Damper (Applicable Model : Touch Screen Model)**



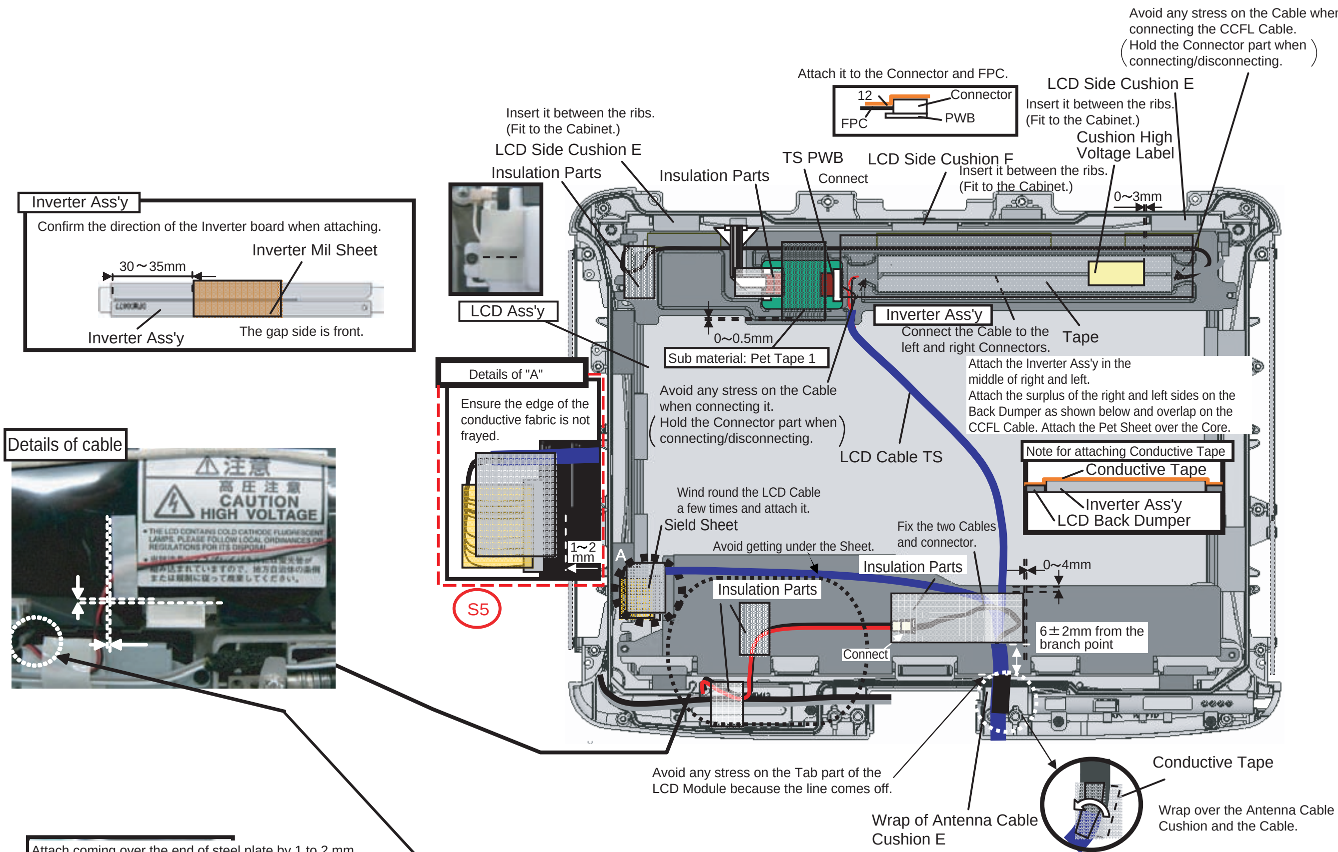
## ■ Assembly of LCD Back Damper (Application Model : Digitizer Model)

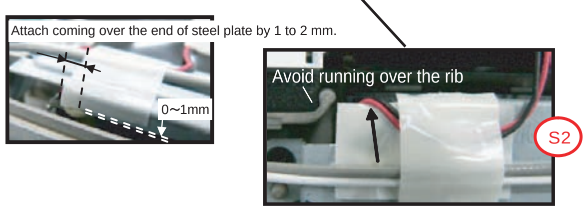



## ■ Assembly of Inverter PCB



## ■ Assembly of Inverter PCB (Applicable Model : Touch Screen Model)

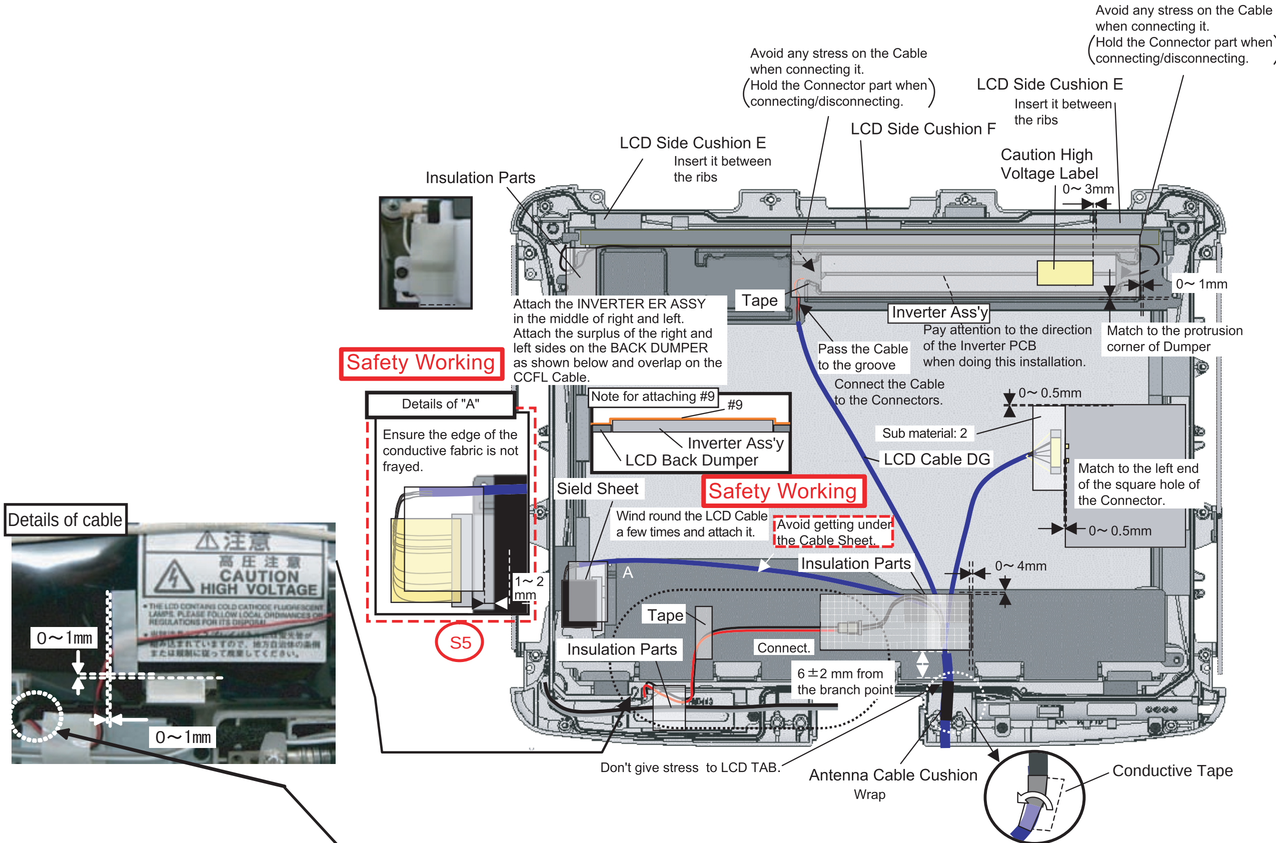


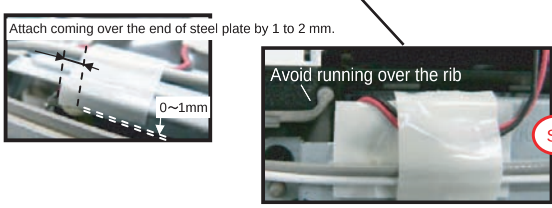




Safety Working

| CAUTION | S1:Insulation S2:Pinching Cables S3:Sharp Edge<br>S4:Part No. Check S5:Others |
|---|---|

## ■ Assembly of Inverter PCB (Application Model : Digitizer Model)



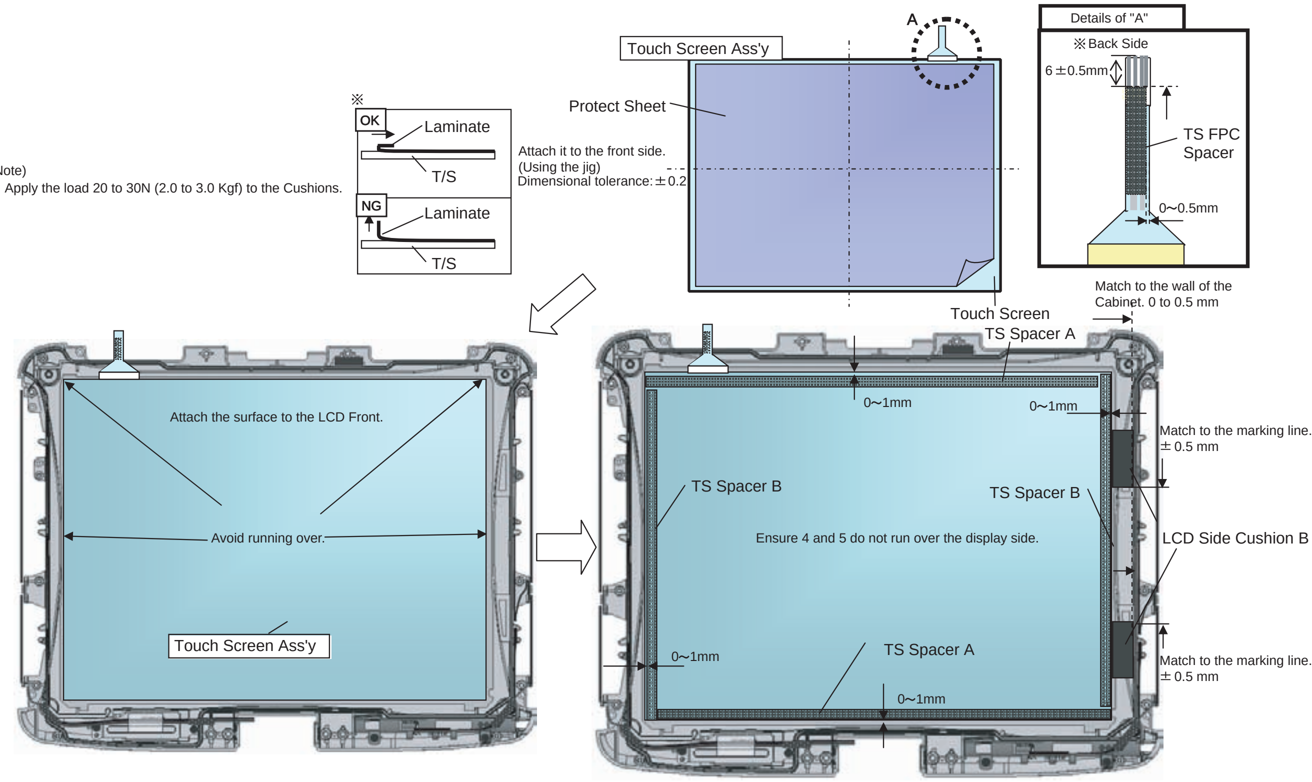




Safety Working

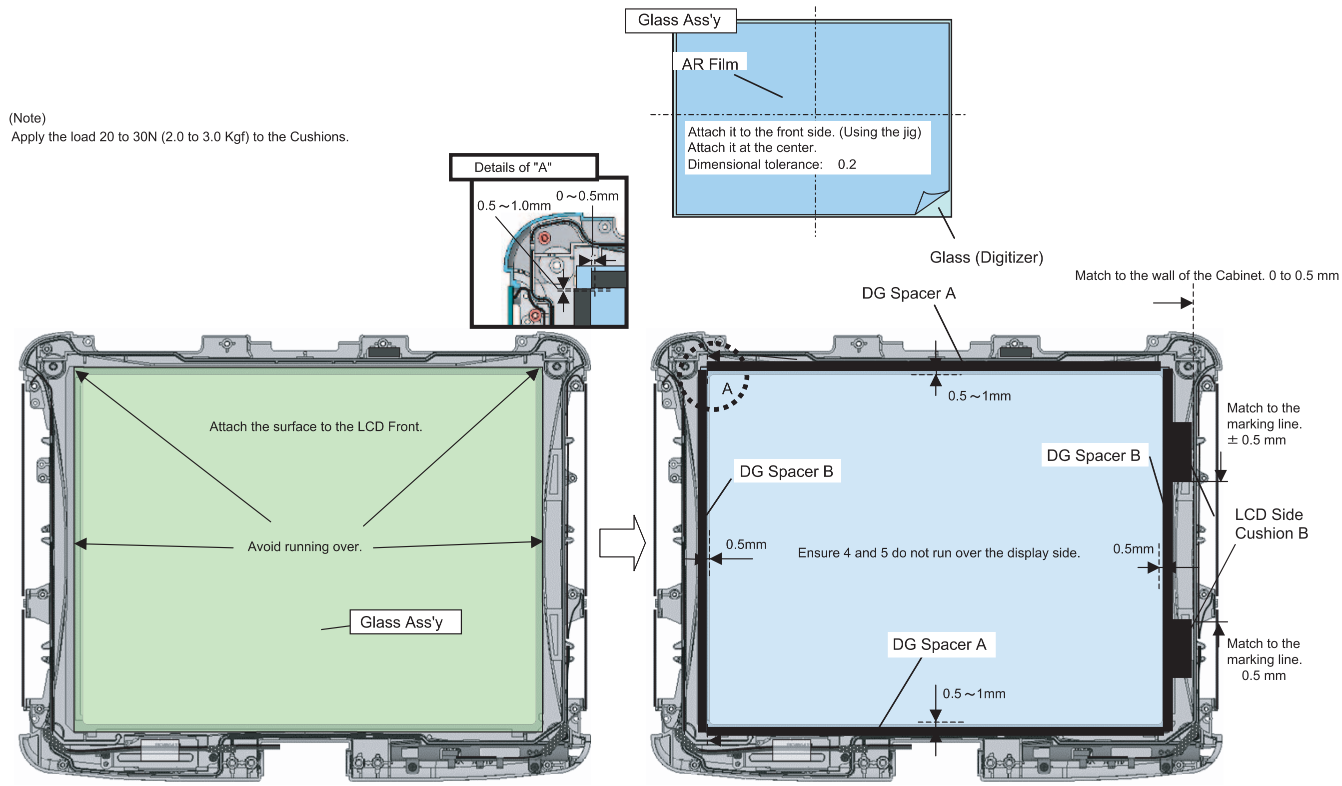
| CAUTION | S1:Insulation S2:Pinching Cables S3:Sharp Edge<br>S4:Part No. Check S5:Others |
|---|---|

## ■ Assembly of Touch Screen (Applicable Model : Touch Screen Model)

(Note)
Apply the load 20 to 30N (2.0 to 3.0 Kgf) to the Cushions.



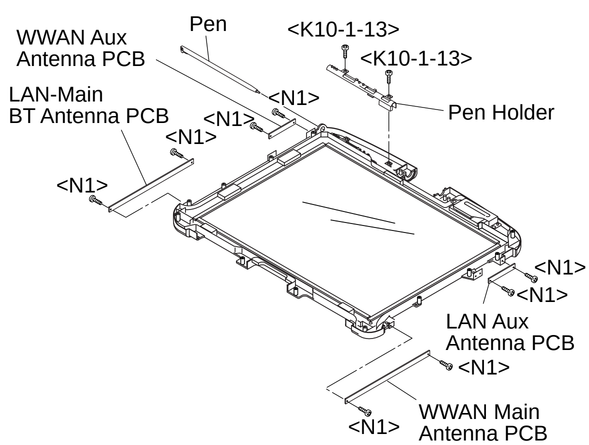
■ **Assembly of Glass (Applicable Model : Digitizer Model)**



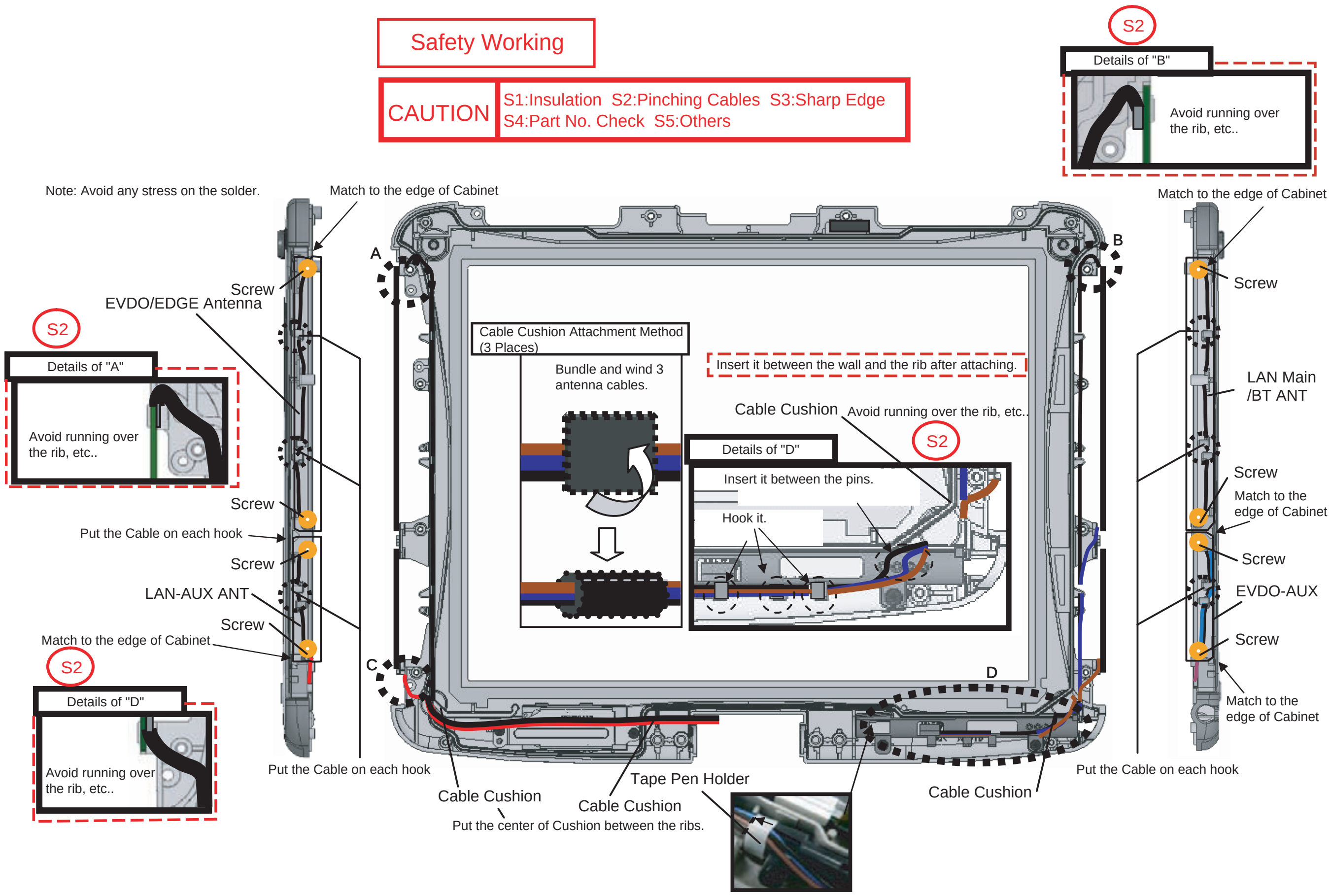

## 9.2.3. Assembling the WWAN Main Antenna PCB, LAN-Main BT Antenna PCB, LAN AUX Antenna PCB, WWAN AUX Antenna PCB and Pen holder

1. Fix the Pen Holder using the 2 Screws. <K10-1-13>
2. Attach the Pen.
3. Fix the WWAN AUX Antenna PCB using the 2 Screws. <N1>
4. Fix the LAN AUX Antenna PCB using the 2 Screws. <N1>
5. Fix the LAN-Main BT Antenna PCB using the 2 Screws. <N1>
6. Fix the WWAN Main Antenna PCB using the 2 Screws. <N1>

Screws <N1> : DFHE5025XA
Screws <K10-1-13> : DRHM5025YAT



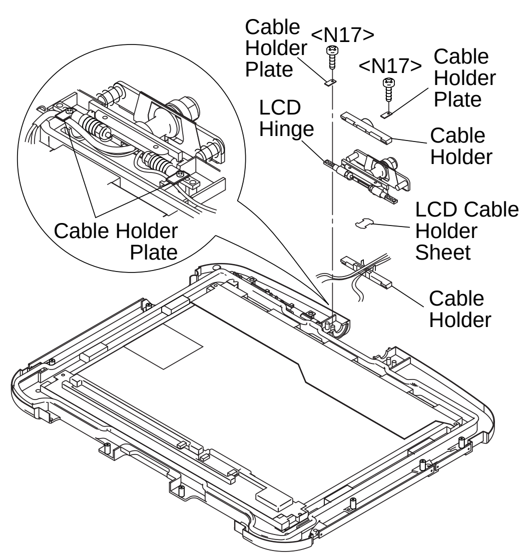
## ■ Line Processing of Antenna Cable



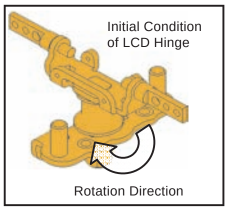

### 9.2.4. Setting up the LCD Hinge

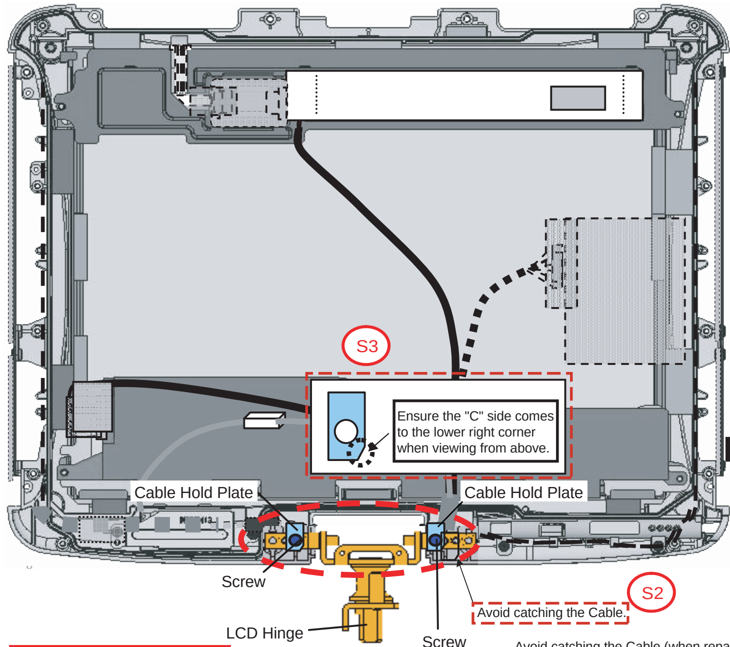
1. Wind the Cable coming out of the LCD Unit counterclockwise to the LCD Hinge.
2. Set the Lock Plate and the Hinge Top Cover, and rotate the LCD Hinge to turn the Display Unit to front
3. Put the LCD Cable and the Antenna Cable in the Cable Holder.
4. Fit another Cable Holder and clamp the Cable Holders in the LCD Hinge.
5. Fix the LCD Hinge using the 2 Screws <N17> and the 2 Cable Holder Plates.

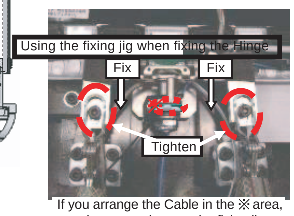
Screws <N17 > : DXYN3+J8FNL



## ■ Assembly of LCD Hinge



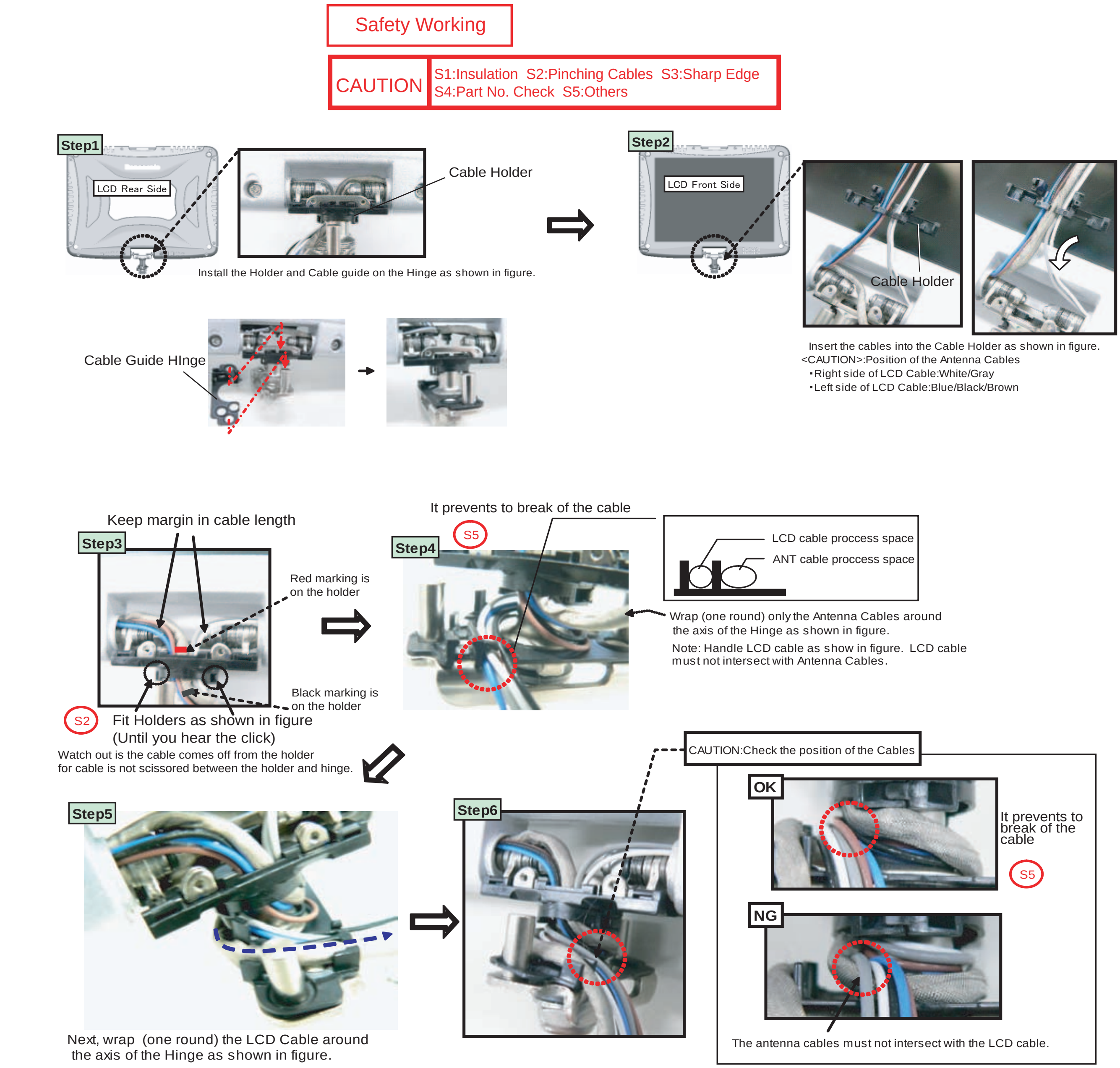

If you arrange the Cable in the ※ area, you do not need to use the fixing jig.

Avoid catching the Cable (when repairing or when not using the jig).
Temporarily fix the both sides ("A") of the Hinge using the Screw, and fix the Cable Hold Plate.
After fixing the Cable Hold Plate, remove the screws from the both sides ("A").

Safety Working

| CAUTION | S1:Insulation S2:Pinching Cables S3:Sharp Edge<br>S4:Part No. Check S5:Others |
|---|---|

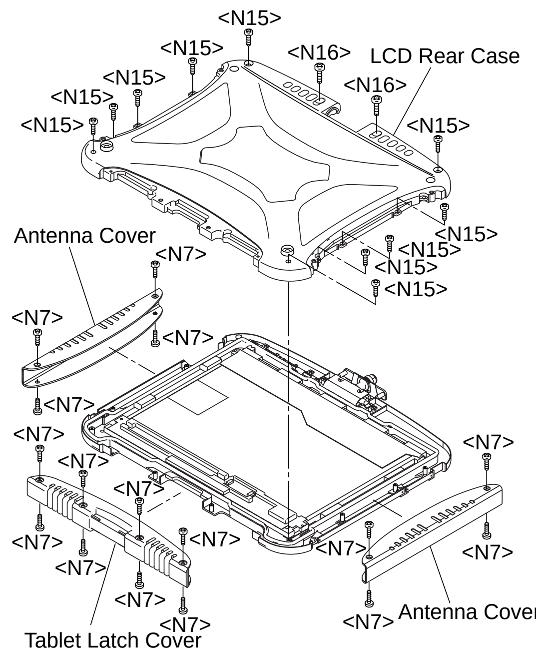
## ■ Line Processing of Antenna Cable and LCD Cable



## 9.2.5. Assembling the Antenna Cover, the Tablet Latch Cover and the LCD Rear Case

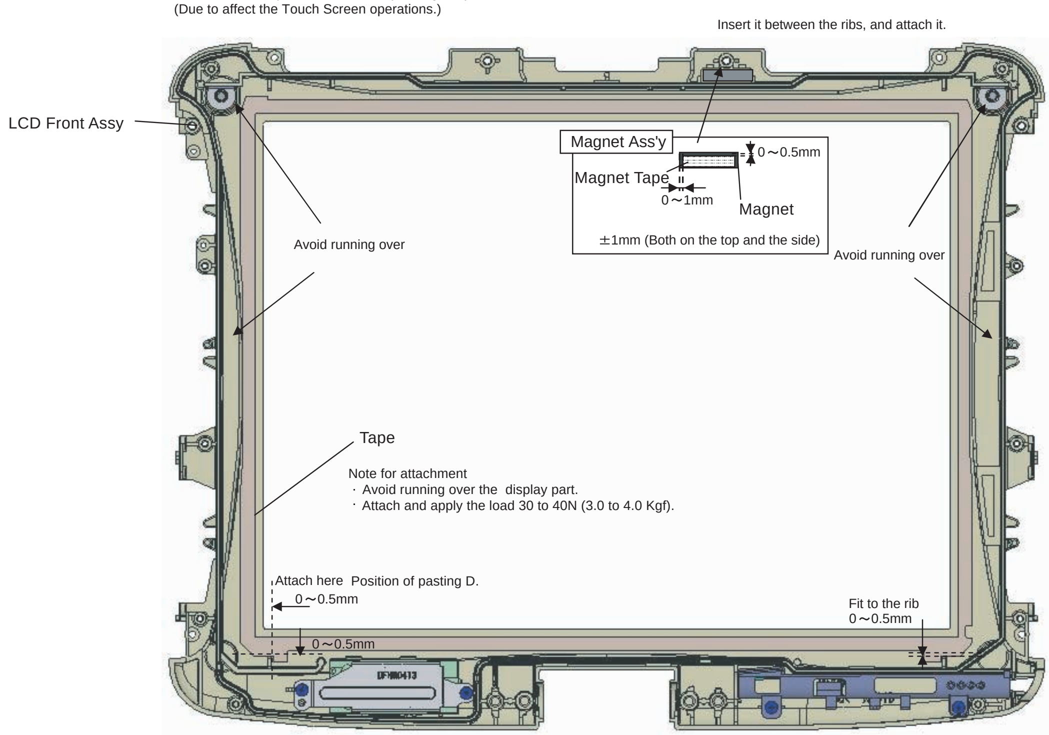
1. Fix the LCD Rear Case using the 10 Screws <N15> and the 2 Screws. <N16>
2. Attach the Antenna Covers and the Tablet Latch Cover to the Display Unit.
3. Tighten the 8 Screws <N7> on the back of the Display Unit.
4. Turn the Display Unit over, and tighten the 8 Screws. <N7>

Screws <N7> : DRQT26+E5FKL
Screws <N15> : DXYN2+J6FNL
Screws <N16> : DXYN3+J10FNL



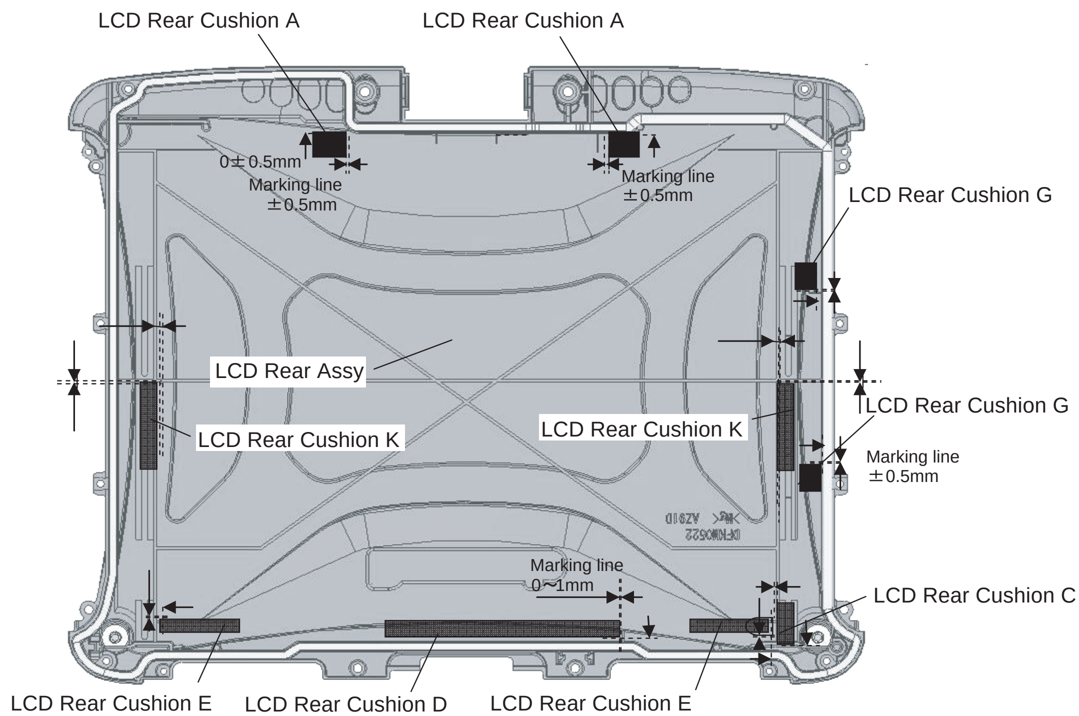

■ **Assembly of LCD Front Case**

※Do not use if the protrusion such as painting lump exists around D5.
(Due to affect the Touch Screen operations.)



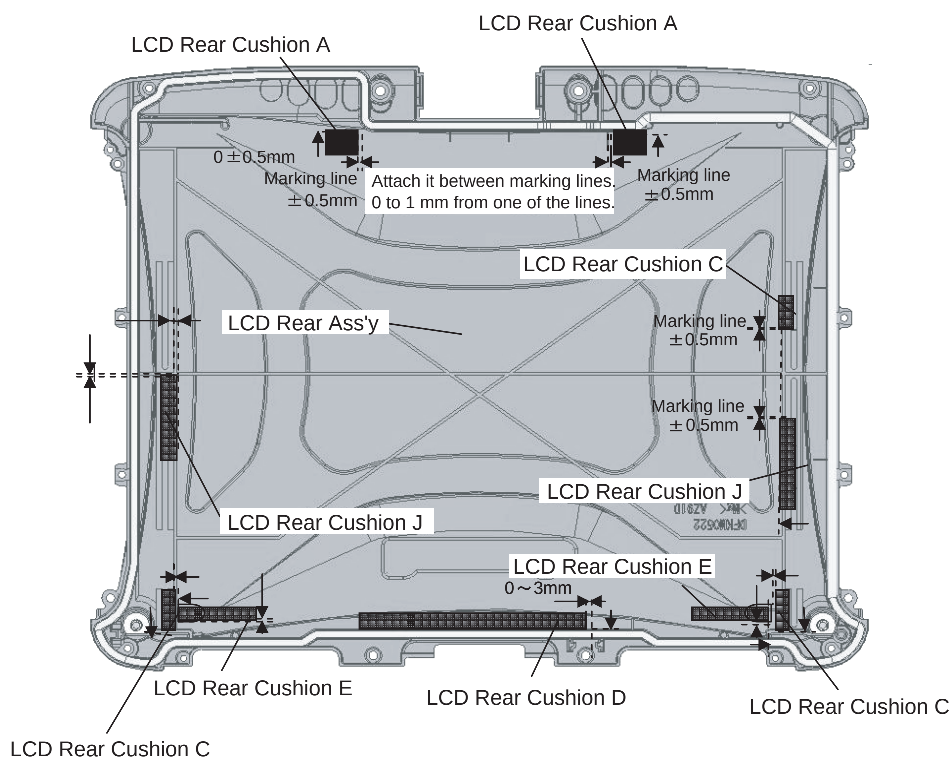
## ■ Assembly of LCD Rear Case (Applicable Model : Touch Screen Model)

(Note)
- Arrow without specified measurement: 0 to 0.5 mm
- Allowable right/left displacement of the Cushion: max. 0.5 mm
- Attach and apply the load 30 to 40N (3.0 to 4.0 Kgf).

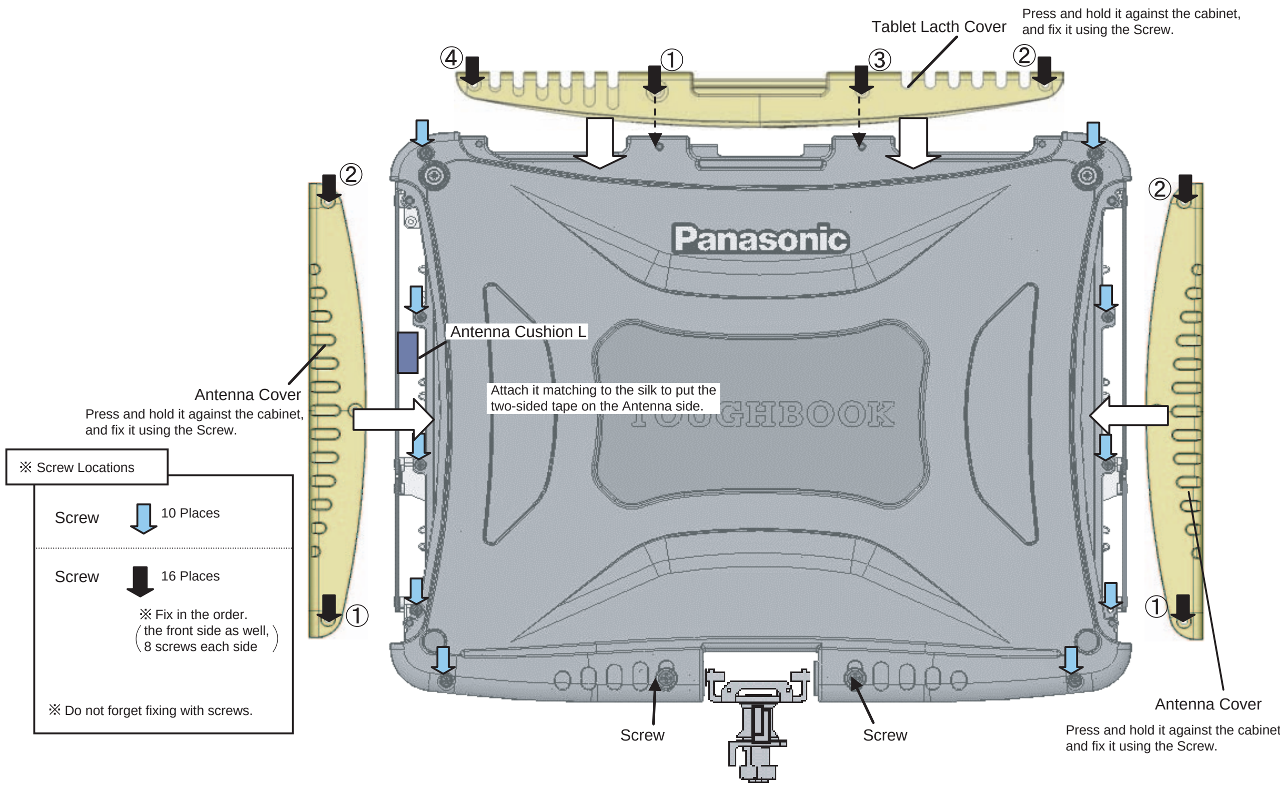



## ■ Assembly of LCD Rear Case (Applicable Model : Digitizer Model)

(Note)
- Arrow without specified measurement: 0 to 0.5 mm
- Allowable right/left displacement of the Cushion: max. 0.5 mm
- Attach and apply the load 30 to 40N (3.0 to 4.0 Kgf).

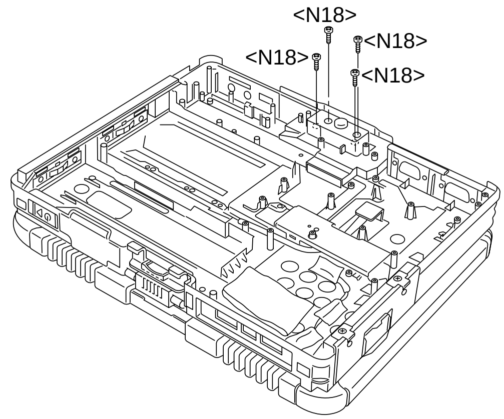


## ■ Assembly of Tablet Latch Cover and Antenna Cover

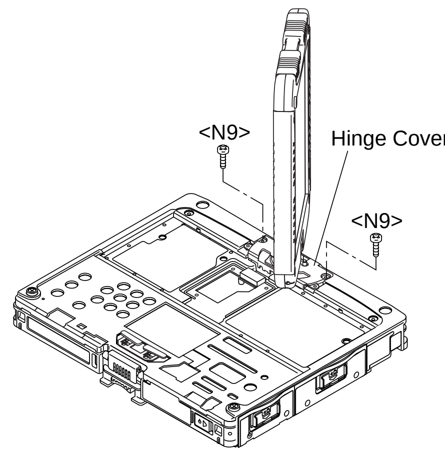


## 9.2.6. Setting the Display Unit

1. Fix the Display Unit using the 2 Screws <N9>.
2. Close the Display Unit and turn the computer over, then fix the Display Unit using the 4 Screws <N18>.

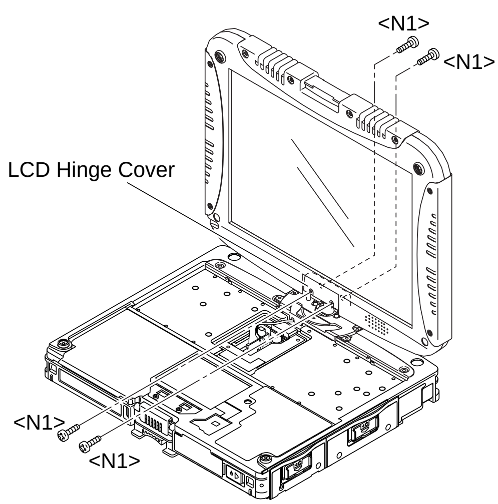



3. Turn the computer over and fix the LCD Hinge Cover using the 2 Screws <N1>.

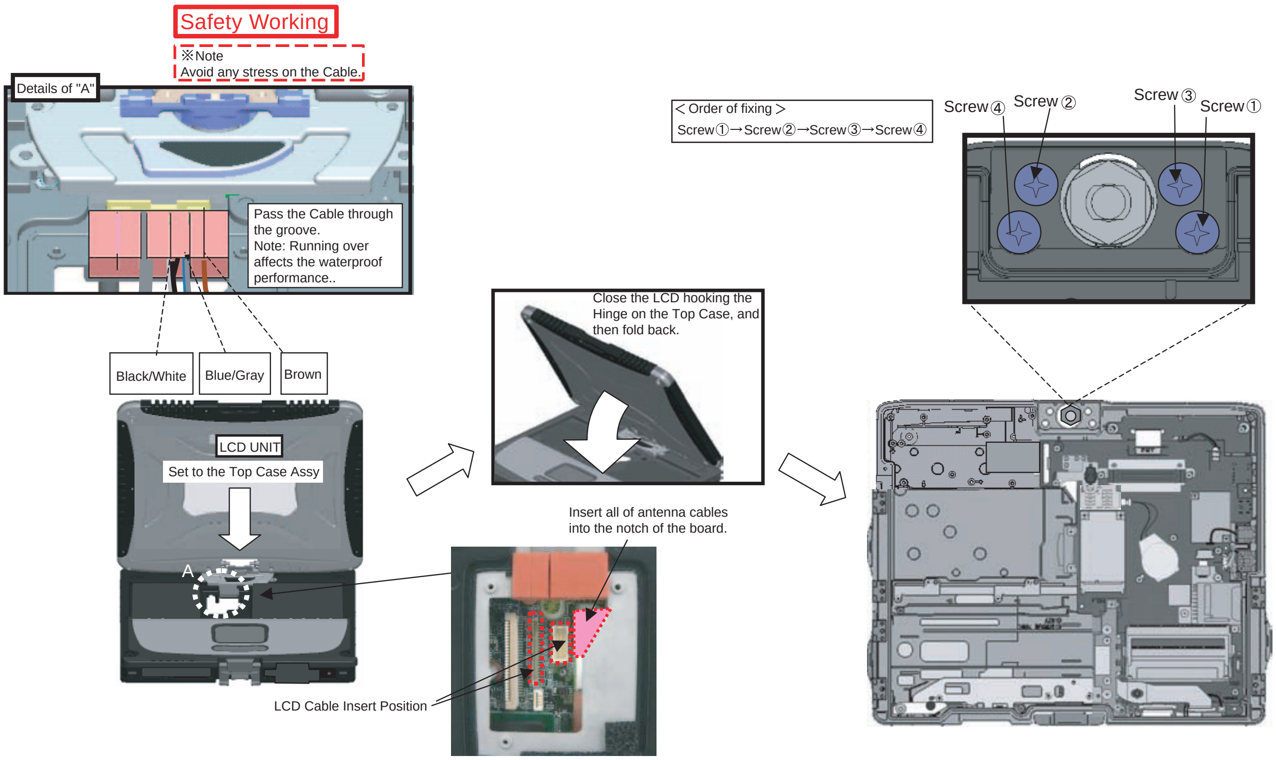



4. Open the Display Unit and fix the LCD Hinge Cover using the 2 Screws <N1>.

Screws <N1> : DFHE5025XA
Screws <N9> : DRSB2+5FKL
Screws <N18> : XYN4+J7FNL

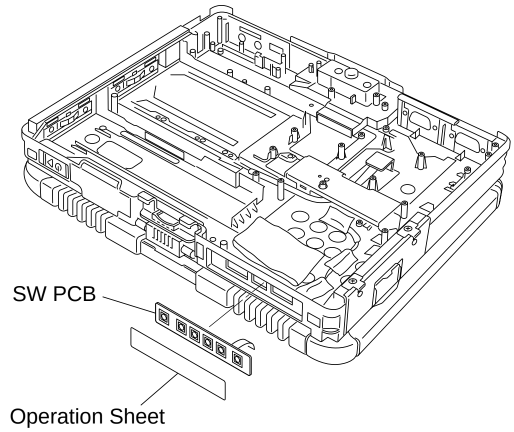


## ■ Assembly of Display Unit

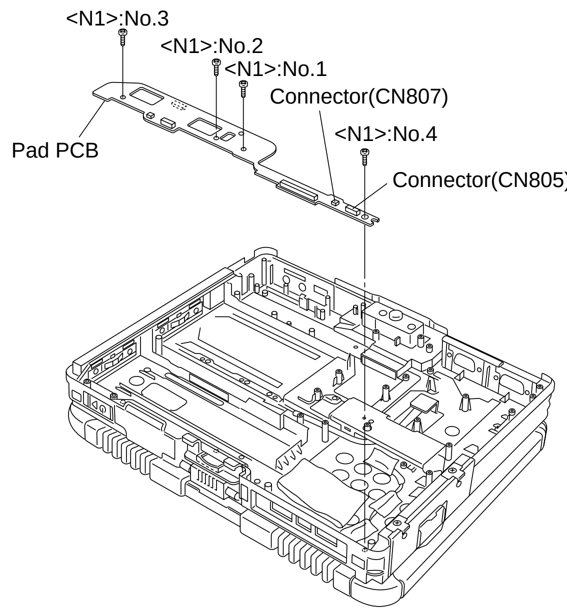


## 9.2.7. Setting the Pad PCB and SW PCB

1. Attach both the SW PCB and the Operation Sheet to the Cabinet.

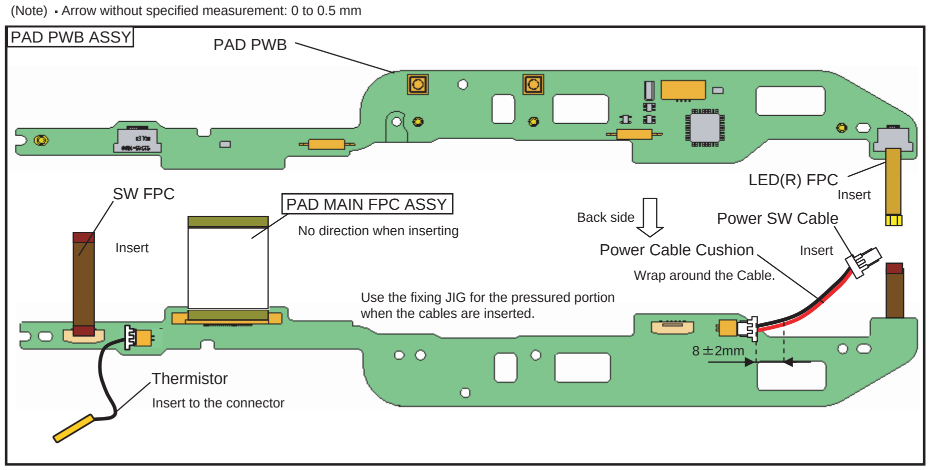


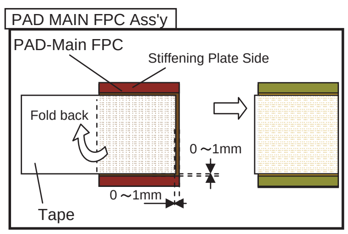

2. Connect the 3 Cables to the 3 Connectors. (CN800,CN805,CN807)
3. Fix the Pad PCB using the 4 Screws. <N1>
   **Note:**
   Tighten the Screws in the numbered order (No1 to No4).

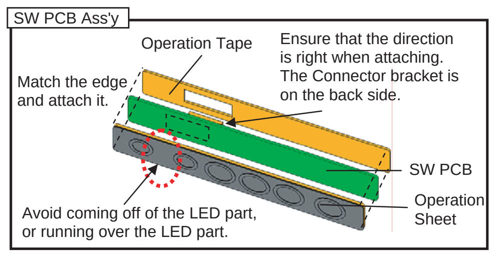



Screws <N1> : DFHE5025XA

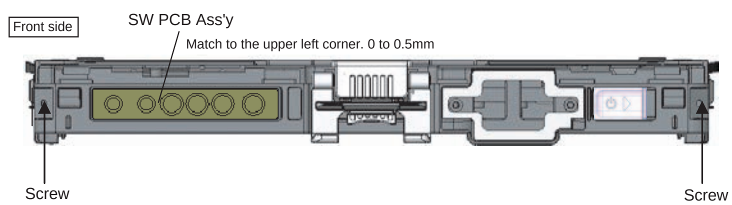
## ■ Assembly of the Pad PCB and SW PCB



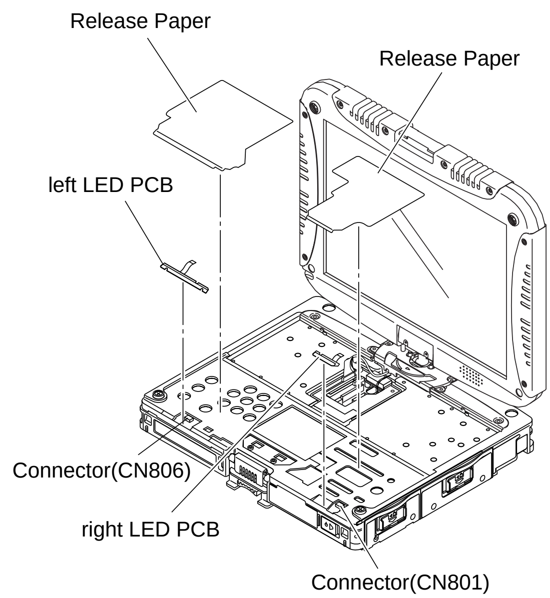




## ■ Putting of the TP Bottom Tape

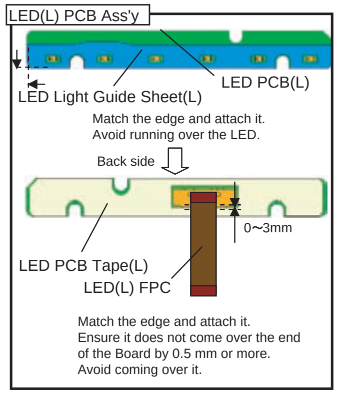


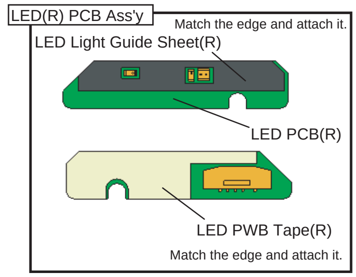

# 9.2.8. Setting the left LED PCB and right LED PCB

1. Connect the Cable to the Connector. (CN806)
2. Fix the left LED PCB.
3. Connect the Cable to the Connector. (CN801)
4. Fix the right LED PCB.
5. Attach the two Release Papers.
6. Attach the Palm Rest Ass'y.



## ■ Assembly of the left LED PCB and right LED PCB

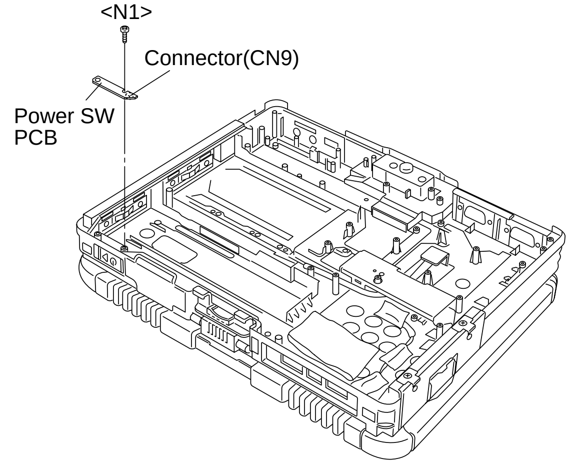



## 9.2.9. Setting the Power SW PCB

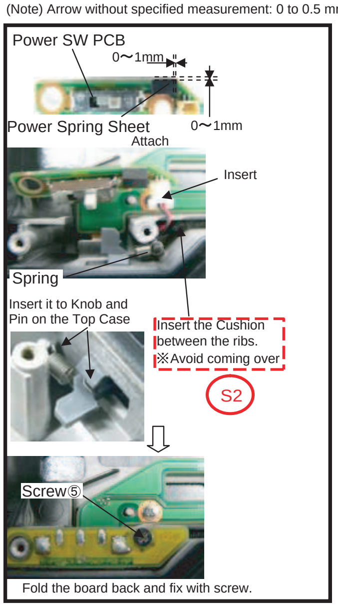
1. Connect the Cable to the Connector. (CN9)
2. Fix the Power SW PCB using the Screw. <N1>

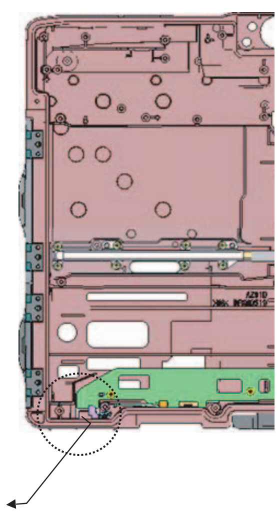
Screws <N1> : DFHE5025XA




## ■ Assembly of the Power SW PCB

(Note) Arrow without specified measurement: 0 to 0.5 mm



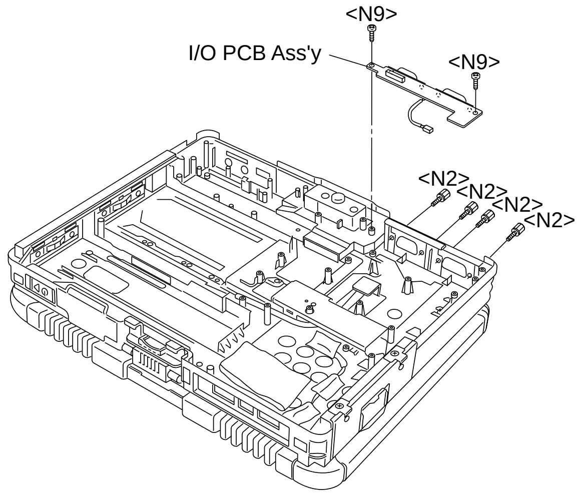
Safety Working

| CAUTION | S1:Insulation S2:Pinching Cables S3:Sharp Edge<br>S4:Part No. Check S5:Others |
|---|---|

## 9.2.10. Setting the I/O PCB Ass'y

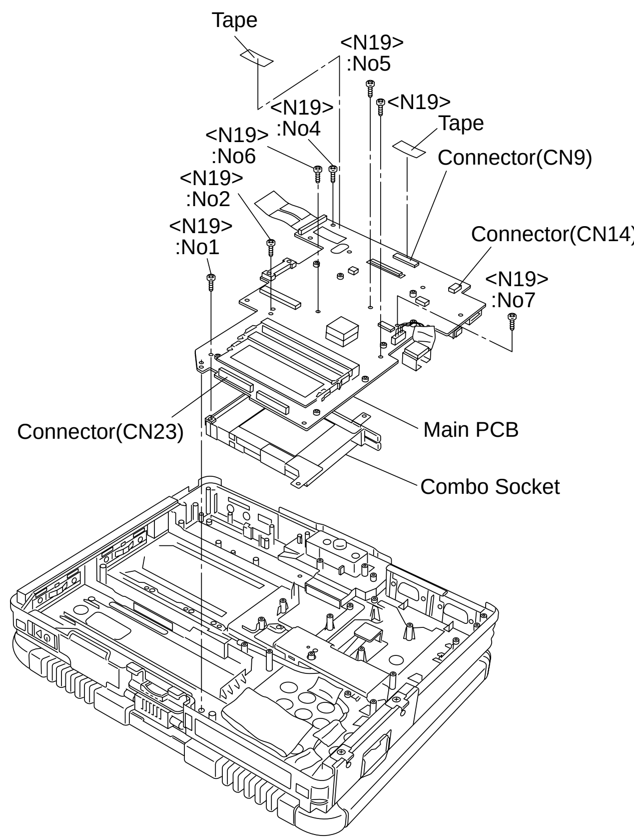
1. Fix the I/O PCB using the 2 Screws. <N9>
2. Fix the I/O PCB using the 4 Screws. <N2>

Screws<N2> : DFHE5058ZB
Screws<N9> : DRSB2+5FKL

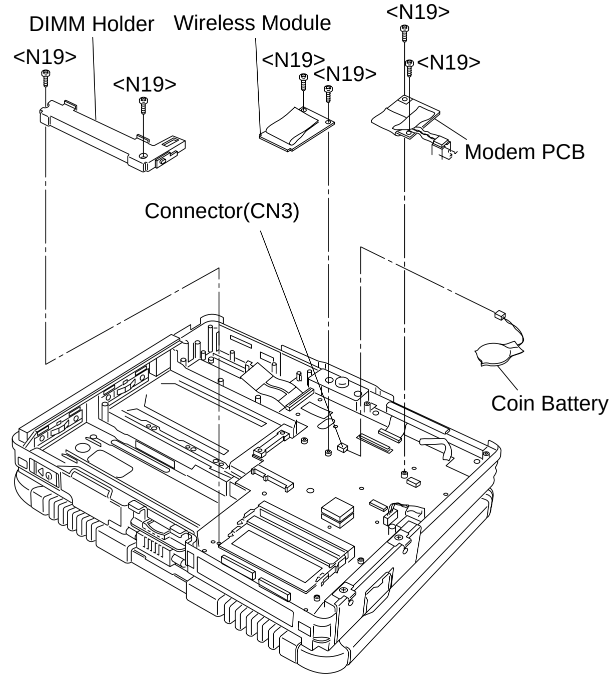



## 9.2.11. Setting the Main PCB, Wireless Module, SD PCB, DU PCB, Antenna PCB and Modem PCB

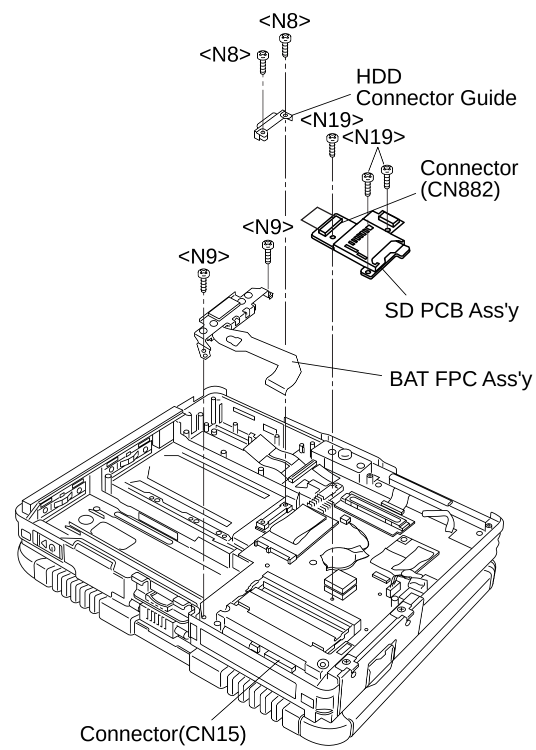
1. Fix the Main PCB using the 7 Screws <N9>.
2. Connect the 3 Cables to the 3 Connectors. (CN9,CN14,CN23)
3. Attach the Tape.



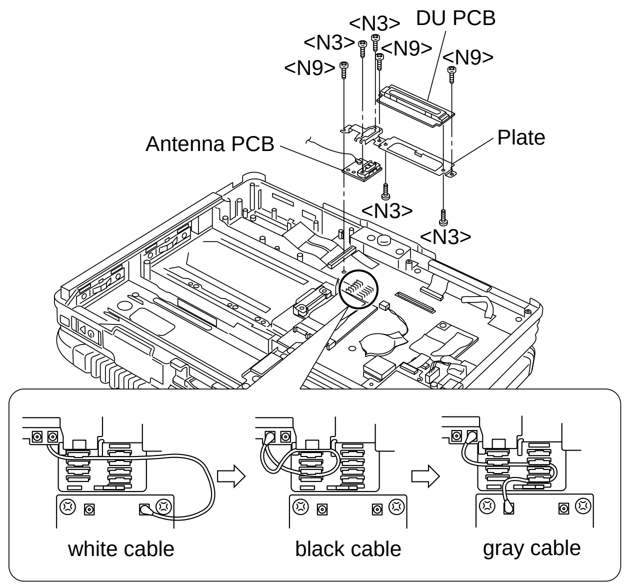
4. Fix the Modem PCB using the 2 Screws <N19>.
5. Fix the Wireless Module using the 2 Screws <N19>.
6. Fix the DIMM Holder using the 2 Screws <N19>.
7. Attach the Cable to the Connector (CN3) and attach the Coin Battery.




8. Fix the SD PCB Ass'y using the 3 Screws <N19>.
9. Attach the Cable to the Connector (CN21).
10. Hook the Flex Cable on the DIMM Holder, and turn 90 degrees.
11. Fix the BAT FPC Ass'y using the 2 Screws <N9>.
12. Connect the cable to the Connector. (CN15)
13. Fix the HDD Connector Guide using the 2 Screws <N8>.



14. Fix the DU PCB and the Plate using the 2 screws <N3>.
15. Fix the DU PCB Ass'y and Antenna PCB using the 3 screws <N9> and the 2 screws <N3> .
16. Connect the white, black and gray Cables.

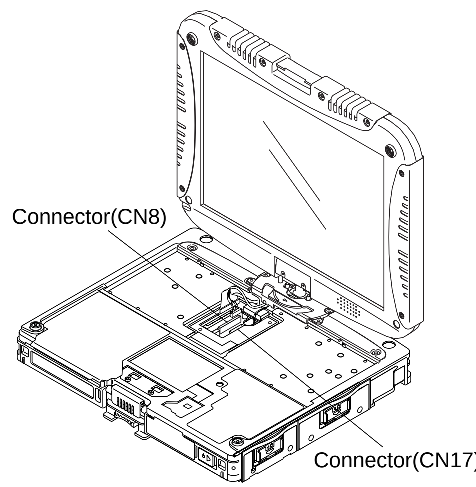



17. Turn the computer over, open the Display Unit, and then connect the 2 LCD Cables. (CN8,CN17)

**Note:**

Tighten the Screws in the numbered order (No1 to No7).

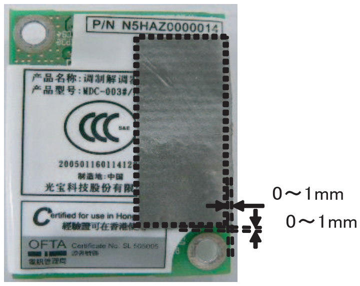
Screws <N3> : DFHE5108ZA
Screws <N8> : DRSB2+10FKL
Screws <N9> : DRSB2+5FKL
Screws <N19> : XSB2+3FNL



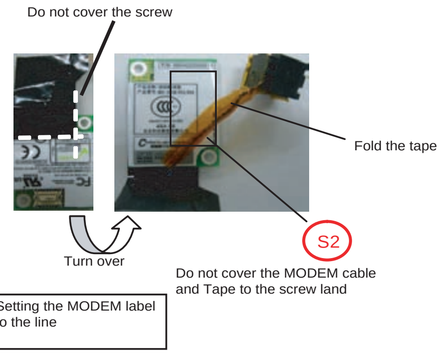
## ■ Assembly of Main PCB

Process in the order of 1→2→3→4.

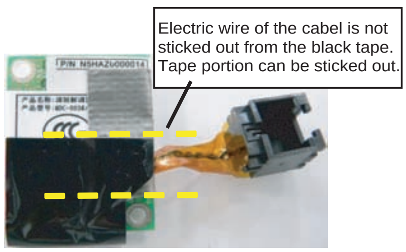
①



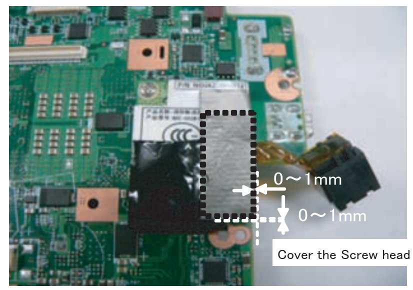

②




③

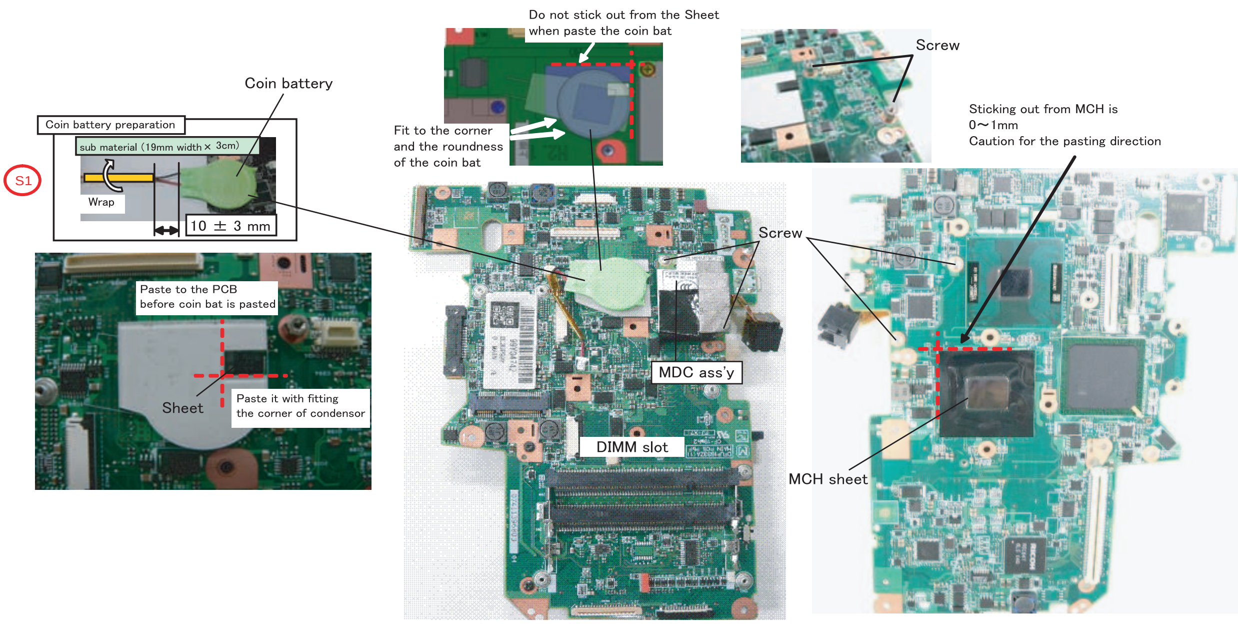


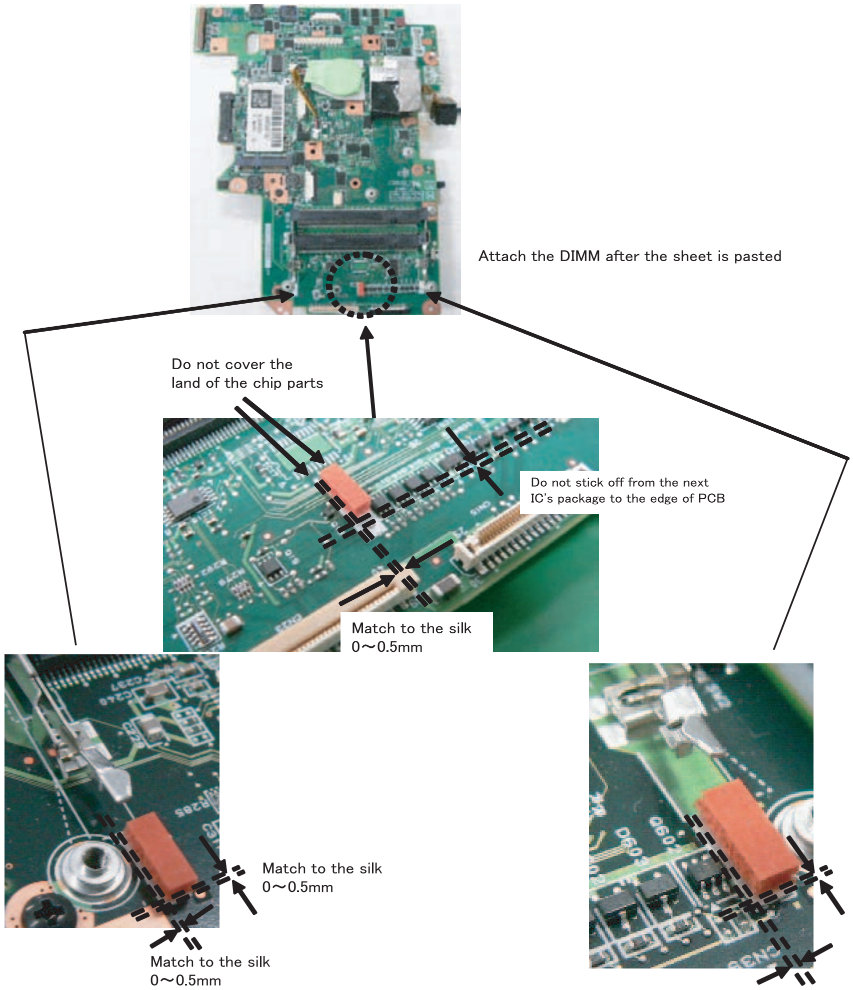

④



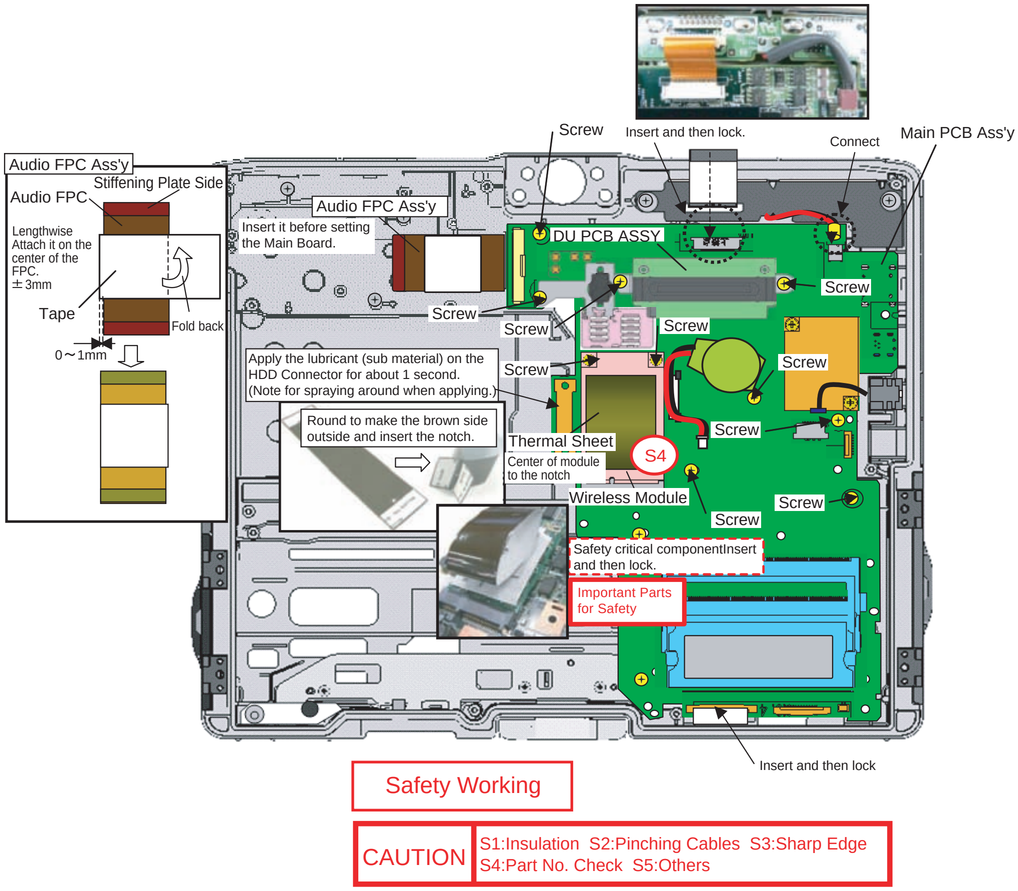

Safety Working

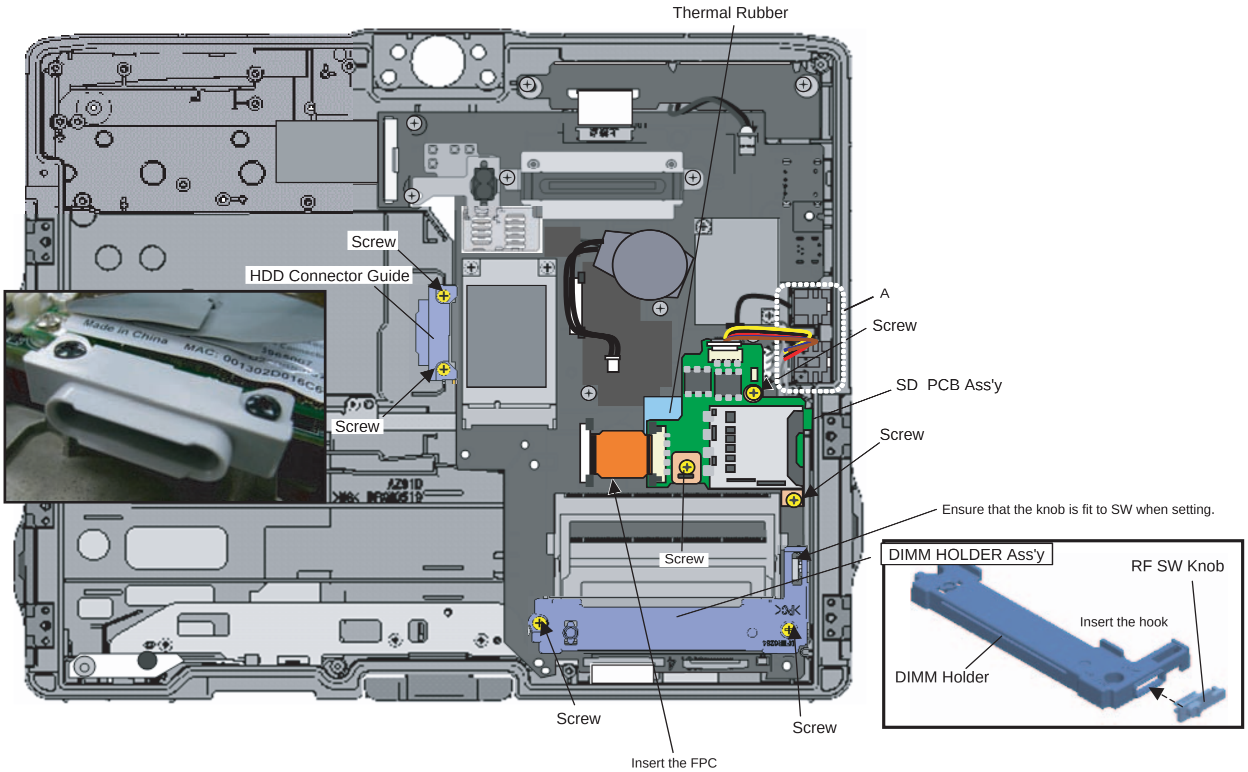
| CAUTION | S1:Insulation S2:Pinching Cables S3:Sharp Edge<br>S4:Part No. Check S5:Others |
|---|---|




Attach the DIMM after the sheet is pasted
Do not cover the
land of the chip parts
Do not stick off from the next
IC's package to the edge of PCB
Match to the silk
0～0.5mm
Match to the silk
0～0.5mm
Match to the silk
0～0.5mm

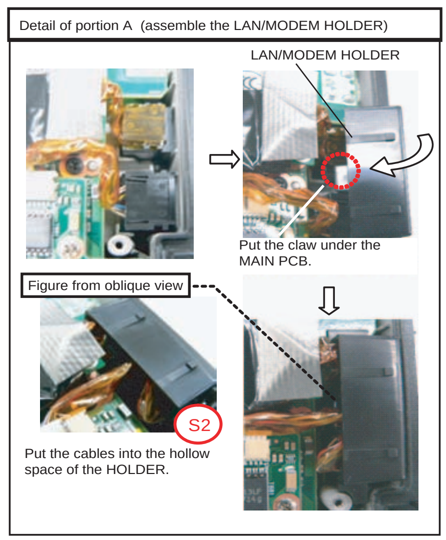
■ **Assembly of Main Unit**

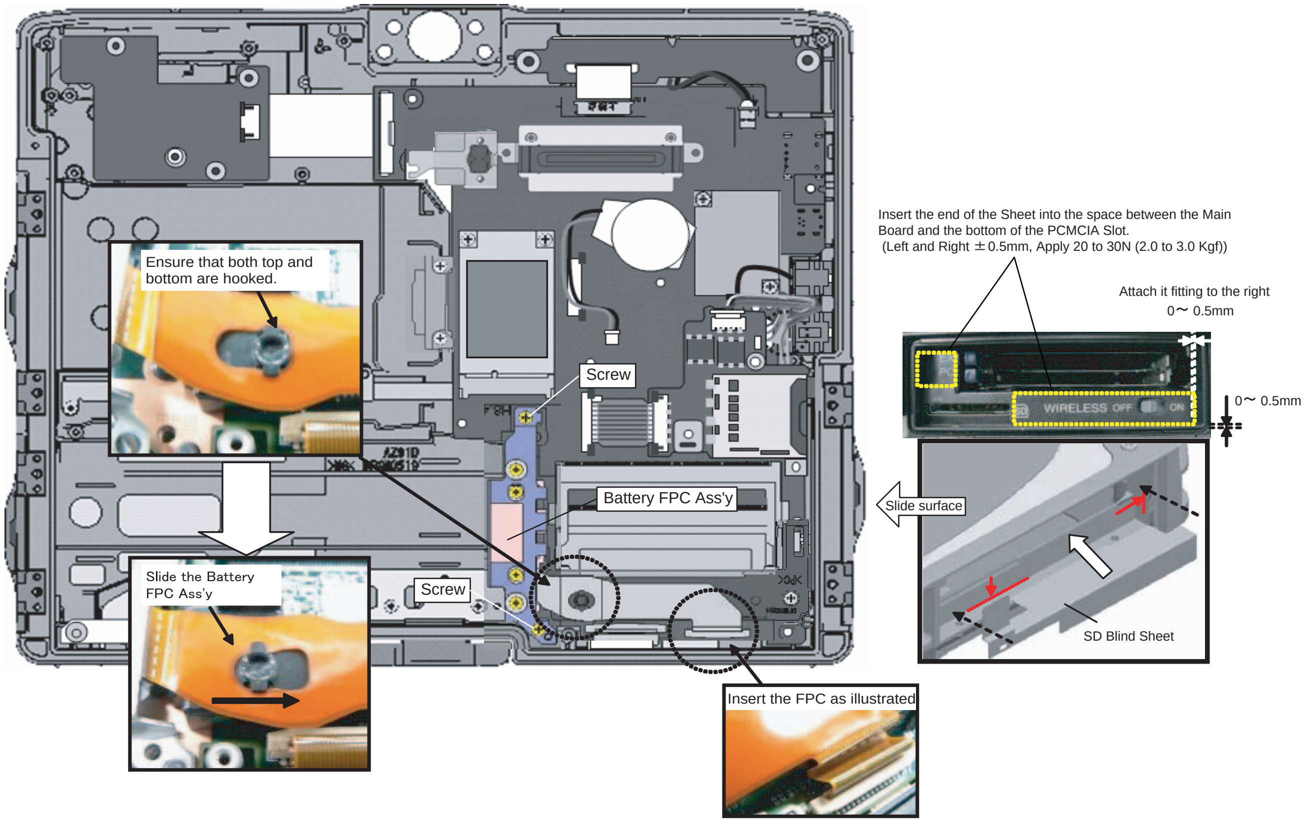





**Safety Working**

| | |
|---|---|
| CAUTION | S1:Insulation S2:Pinching Cables S3:Sharp Edge<br>S4:Part No. Check S5:Others |





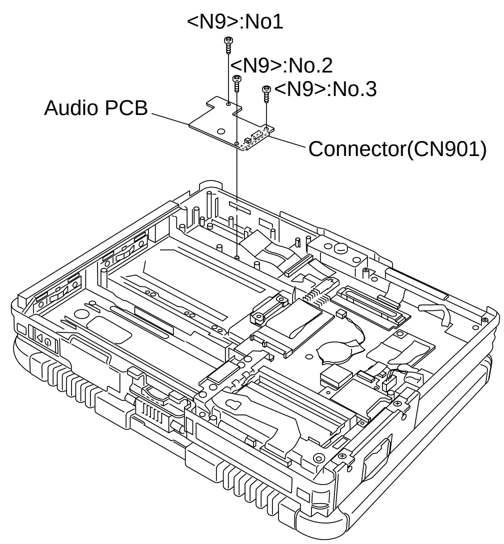

## 9.2.12. Setting the Audio PCB

1. Connect the Cable to the Connector. (CN901)
2. Fix the Audio PCB using the 3 Screws. <N9>

**Note:**

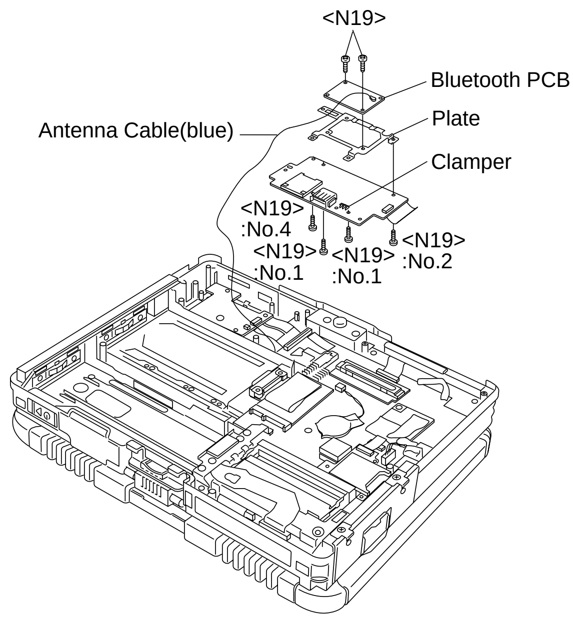
Tighten the Screws in the numbered order (No1 to No3).

Screws <N9> : DRSB2+5FKL



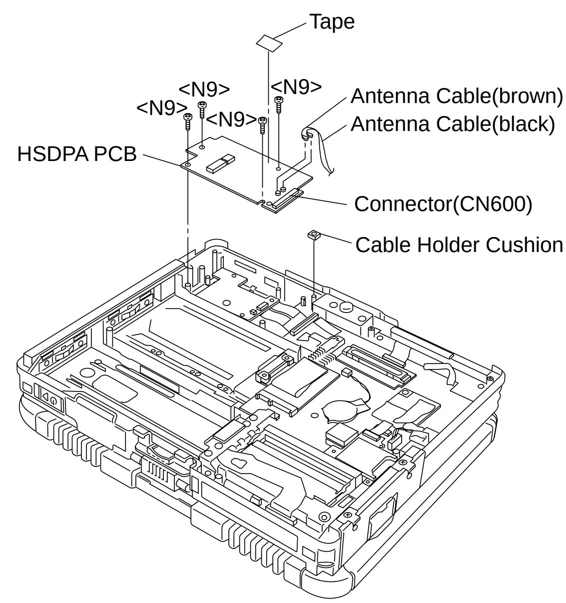
## 9.2.13. Setting the HSDPA PCB and Bluetooth PCB

1. Fix the Plate and Bluetooth PCB using the 2 Screws <N19>.
2. Connect the Cable to the Connector. (CN1)
3. Connect the Cable to the Connector. (CN604)
4. Fix the Plate and the Board using the 4 Screws <N19>.
5. Attach the blue Antenna Cable to the Clamper.



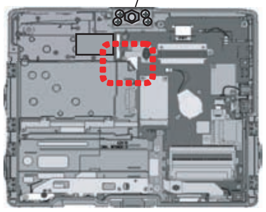

6. Connect the Cable to the Connector. (CN600)
7. Fix the RF PCB Ass'y using the 4 Screws. <N9>
8. Attach the Tape.
9. Attach the brown and black Antenna Cables.
10. Attach the Cable Holder Cushion.

Screws <N9> : DRSB2+5FKL
Screws <N19> : XSB2+3FNL

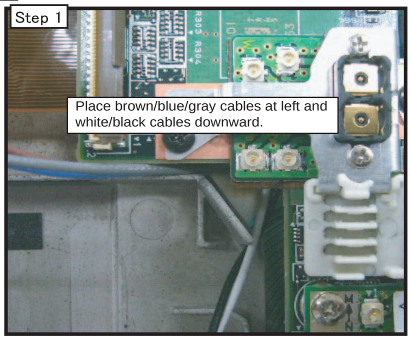


## ■ Line Processing of Antenna Cable of Main Unit

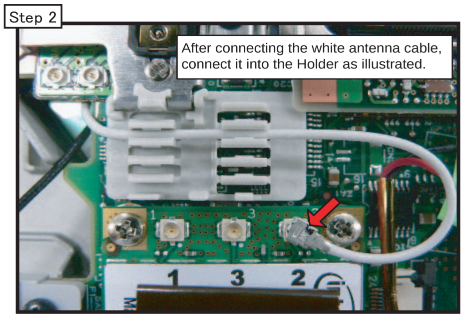
Cable Process 1/3



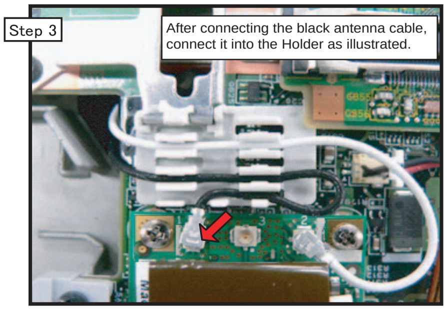
Step 1




Step 2



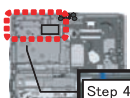

Step 3



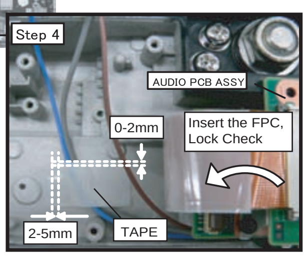

Safety Working

| CAUTION | S1:Insulation S2:Pinching Cables S3:Sharp Edge<br>S4:Part No. Check S5:Others |
|---|---|

Cable Process 2/3



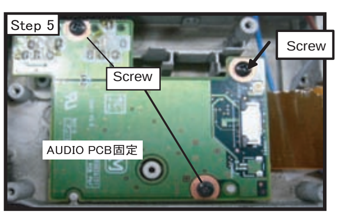
Step 4




After processing the cables, inserting the FPC and locking, incline the Audio PCB into the arrow direction.

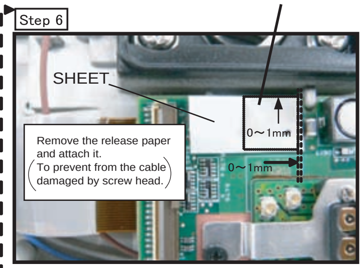
After confirming the cable is not under the AUDIO PCB (processed at the Step 4), tighten the Screws.
Because there is a possibility that the cable is scissored between PCB and the both.

Step 5



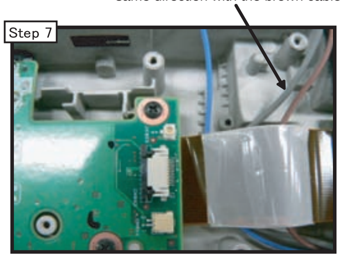

Attach side

Step 6



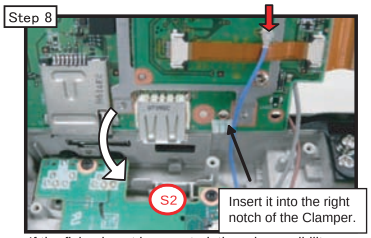

Process the grey cable to the same direction with the brown cable

Step 7



Connect the blue antenna cable.

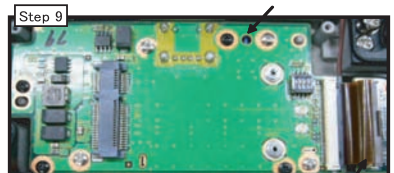
Step 8




If the fixing is not incorrected, there is possibility that the cable is scissored between the PCB and the both.

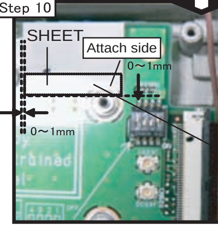
Check the blue cable from the hole.

Step 9



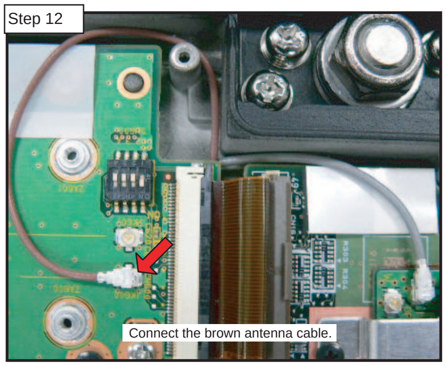
Connect the FPC

Step 10

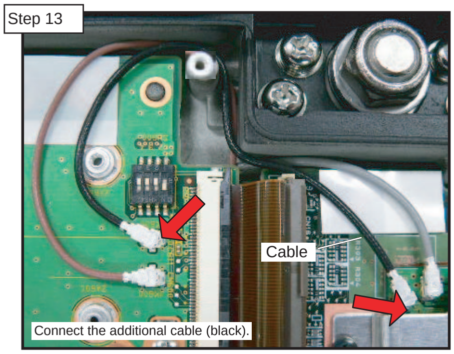



Remove the Release Paper and attach it.
(To prevent from the cable damage by screw bead.)

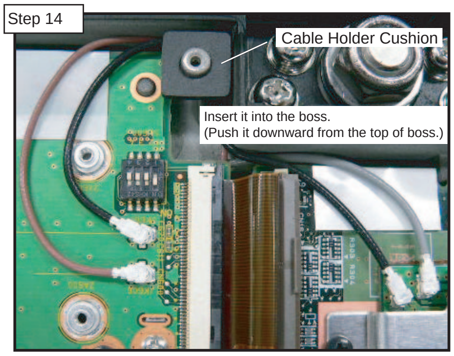
Step 12




Step 13

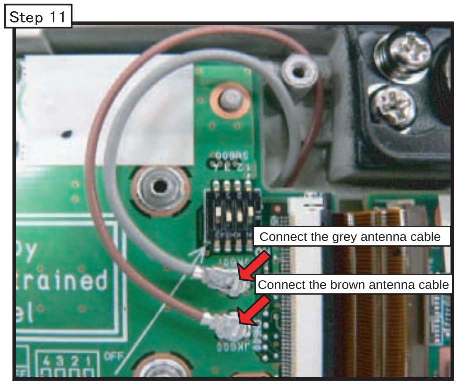



Step 14



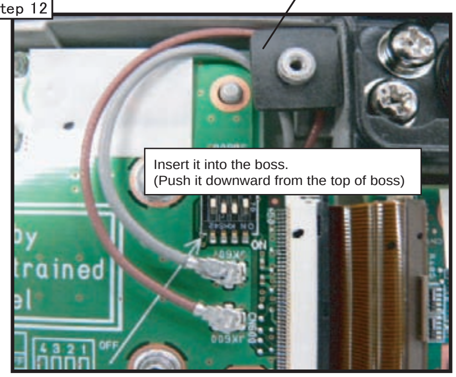

Cable Process 3/3 ①

Step 11




Cable Holder Cushion

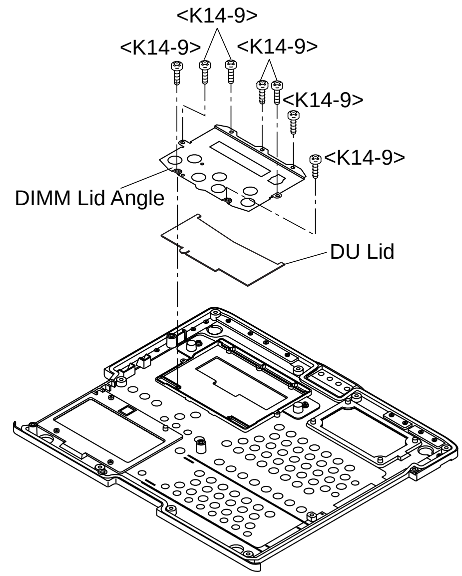
Step 12



## 9.2.14. Assembling the DU Lid Unit

1. Fix the DU Lid Angle and the DU Lid using the 7 Screws. <K14-9>

Screws <K14-9> : DXQT2+D25FNL



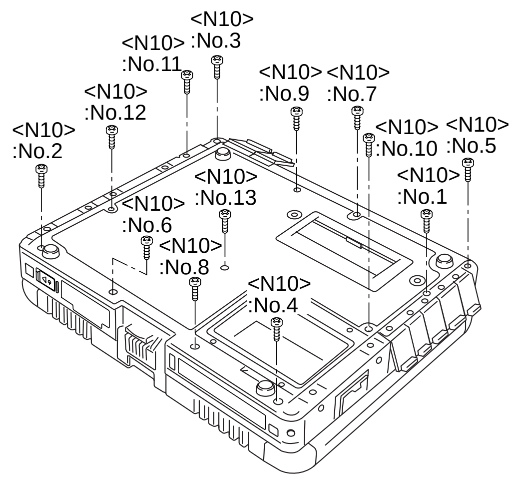

## 9.2.15. Setting the Rear Cabinet

1. Fix the Rear Cabinet on the Computer using the 13 Screws. <N10>
2. Close the Lid Covers.

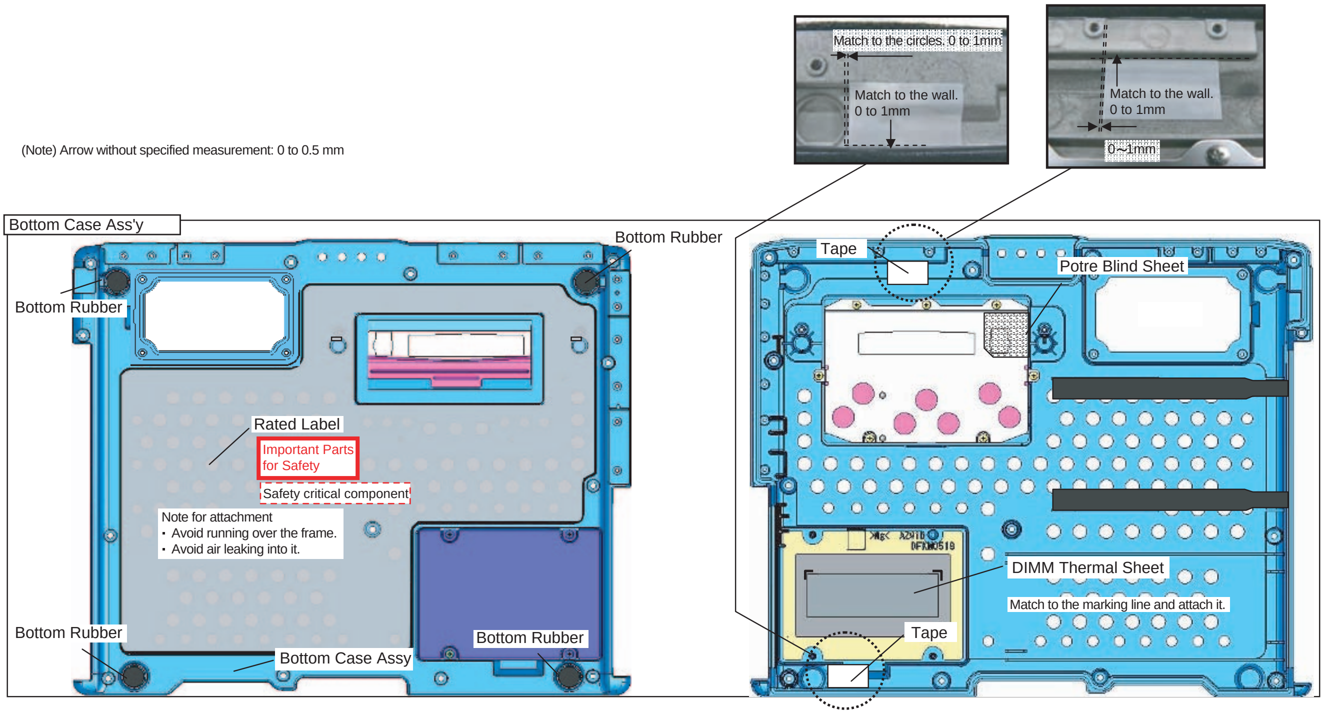
**Note:**

Tighten the Screws in the numbered order (No1 to No13).

Screws <N10> : DRHM0061ZA



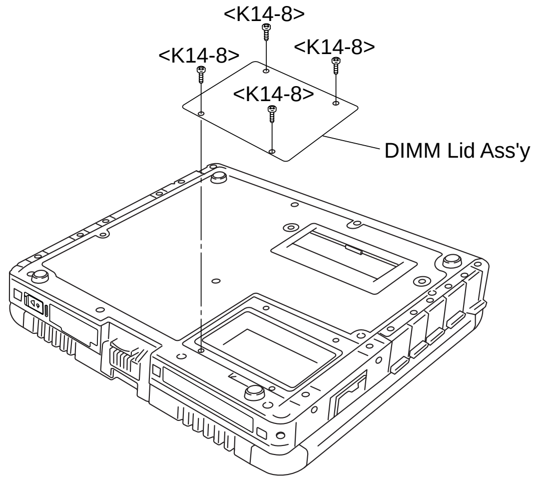
■ **Cautions for Setting the Rear Cabinet**




## 9.2.16. Setting the DIMM Lid Ass'y

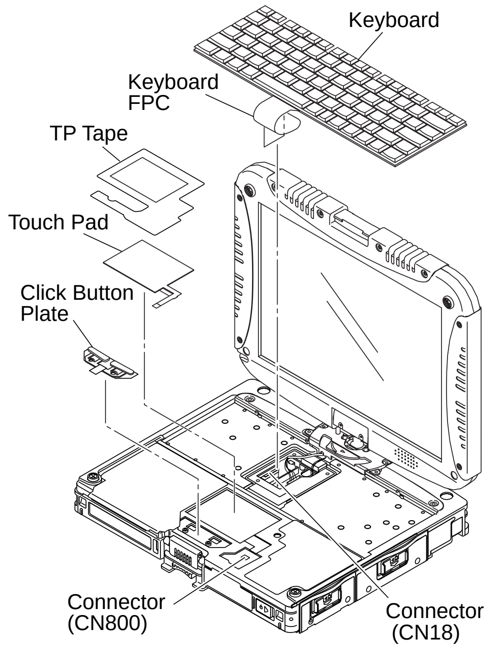
1. Fix the DIMM Lid Ass'y using the 4 Screws. <K14-8>

Screws <K14-8> : DRHM5025YAT

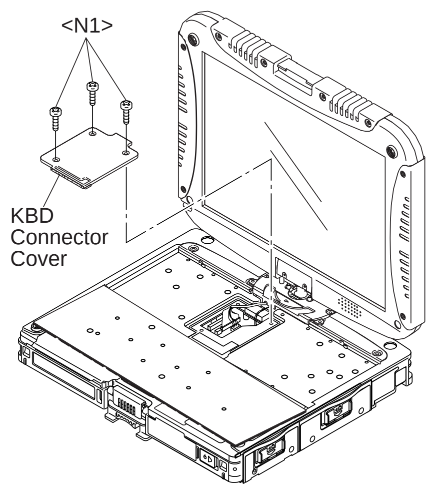


## 9.2.17. Setting the Touch Pad and Keyboard

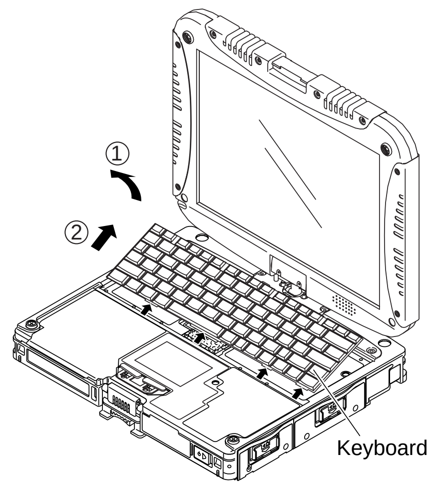
1. Connect the Cable to the Connector (CN800), and attach the Touch Pad to the computer.
2. Set the Click Button Plate.
3. Attach the new TP Tape over the Touch Pad.
4. Attach the Palm Rest Ass'y on the computer.



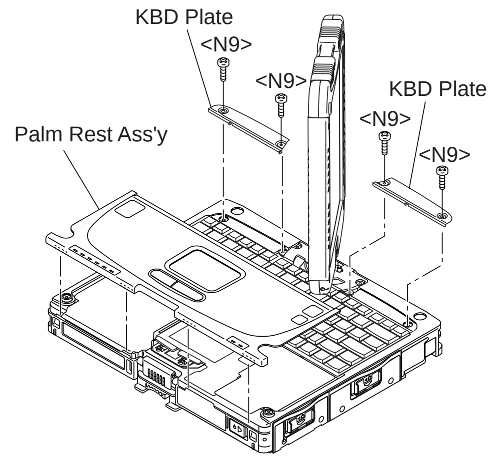

5. Connect the Cable of the Keyboard to the Connector (CN18) on the Main PCB.
6. Fix the KBD Connector Cover using the three Screws. <N1>




7. Set the Keyboard to the computer.

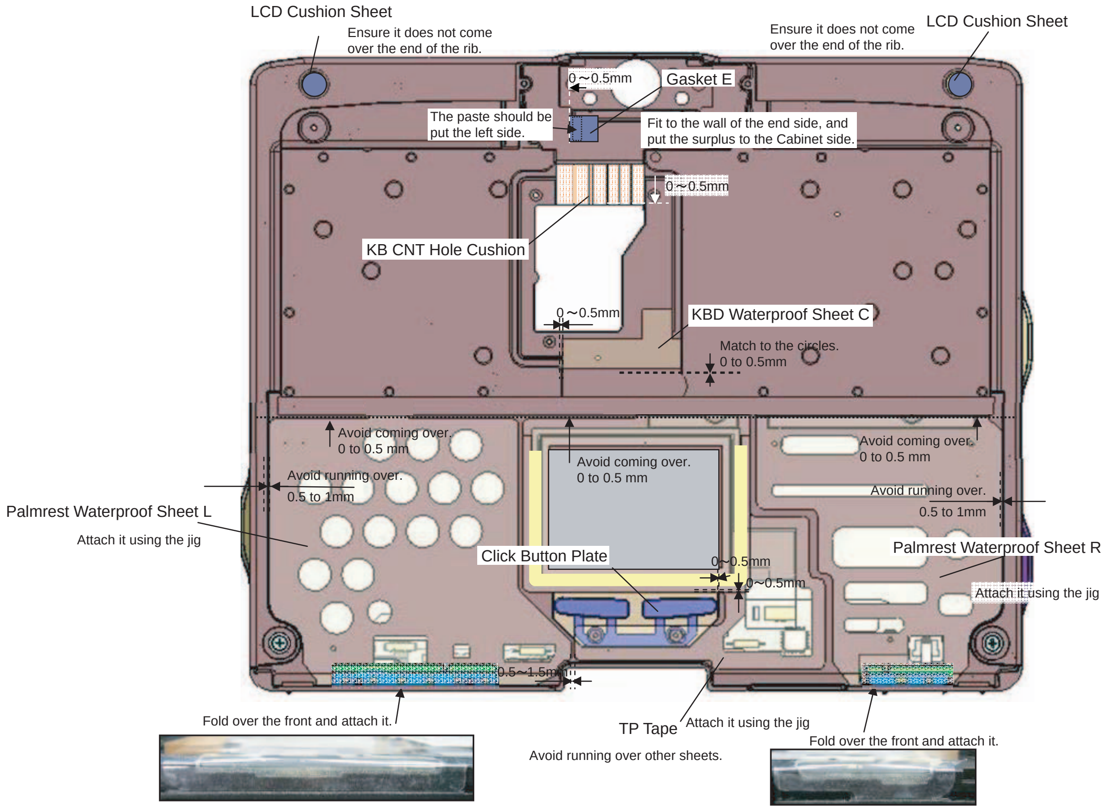



8. Fix the KBD Plate using the four Screws. <N9>




Screws <N1> : DFHE5025XA
Screws <N9> : DRSB2+5FKL

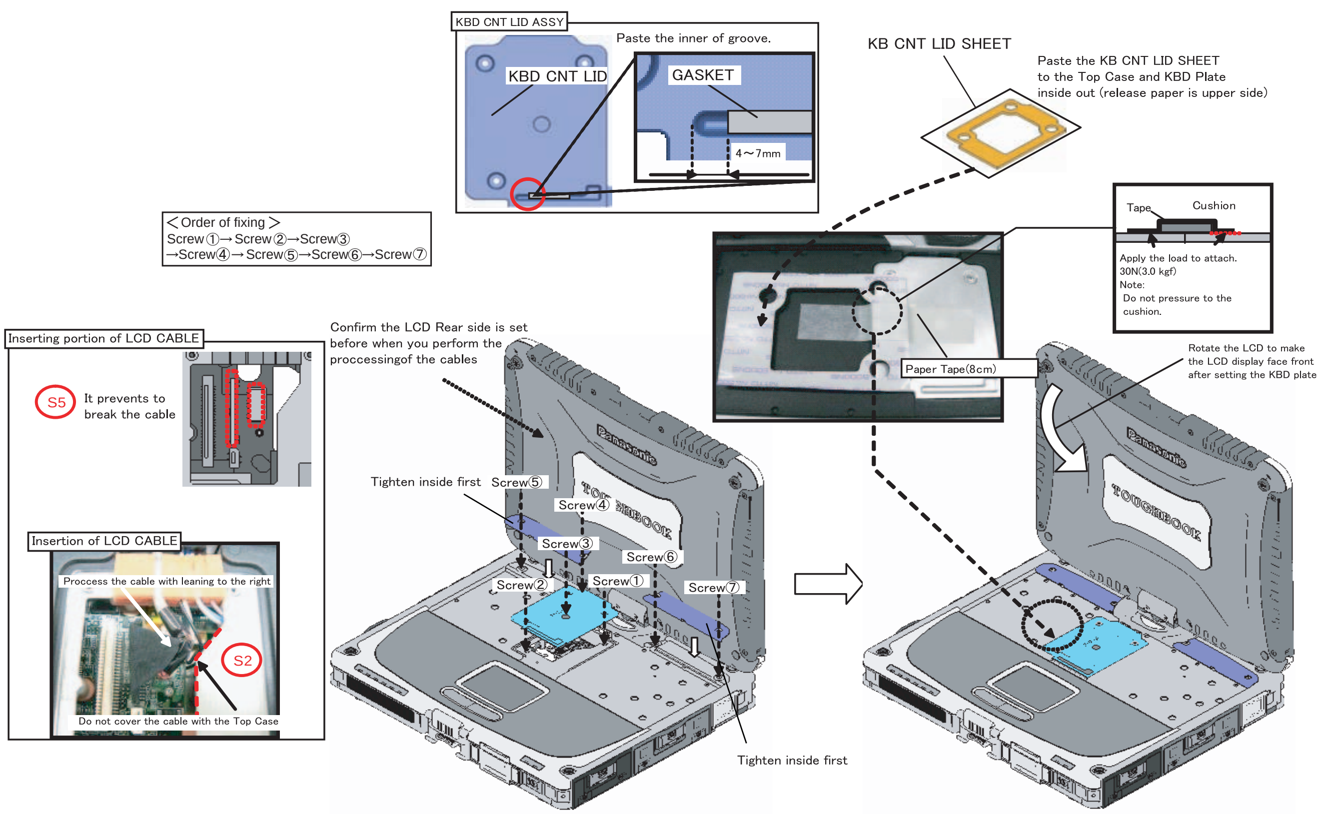
## ■ Putting of the Sheet



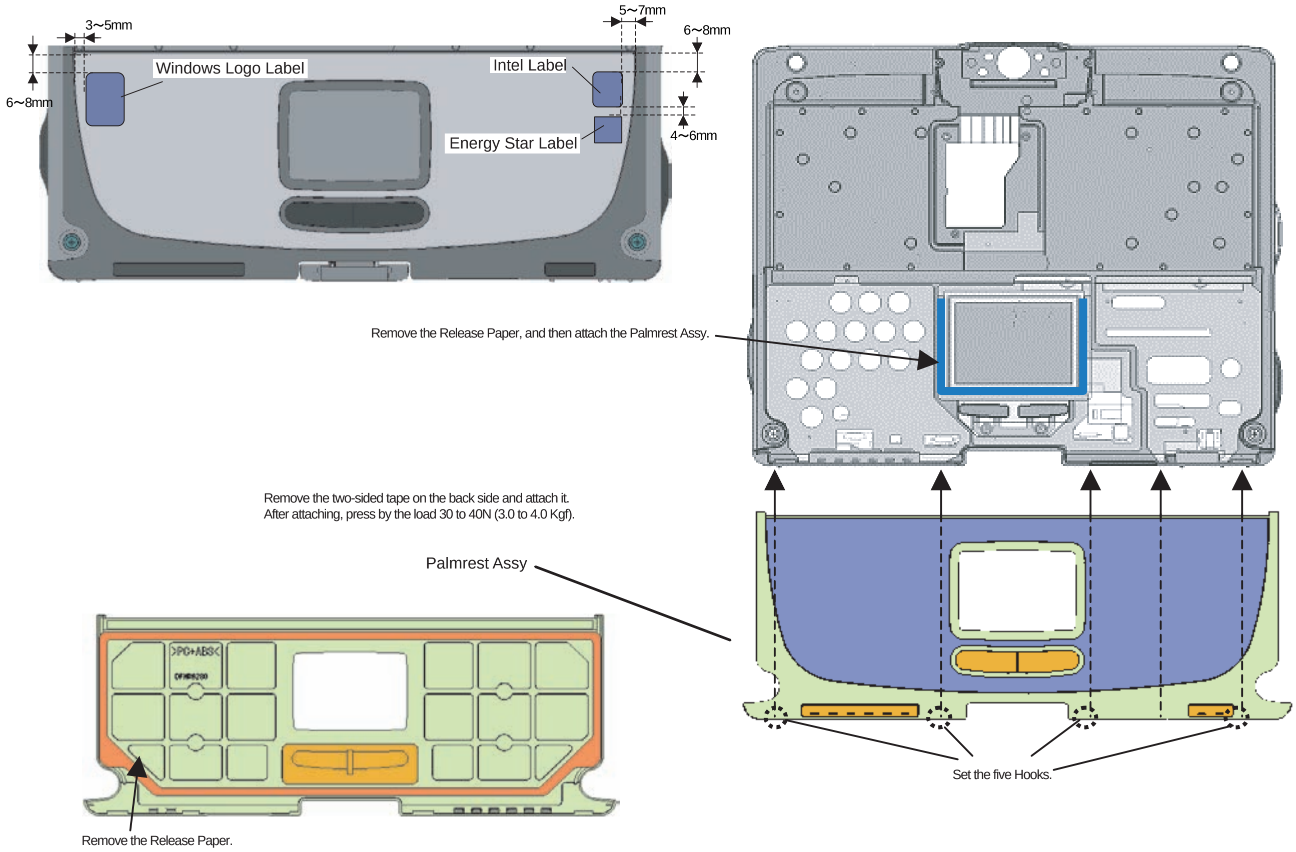

Because the sheets described on this page are waterproof sheets, the whole parts should be put pressure after attaching. (Especially, put pressure around the sheets.)

*Apply the load to attach. 30 to 40N (3.0 to 4.0Kgf)

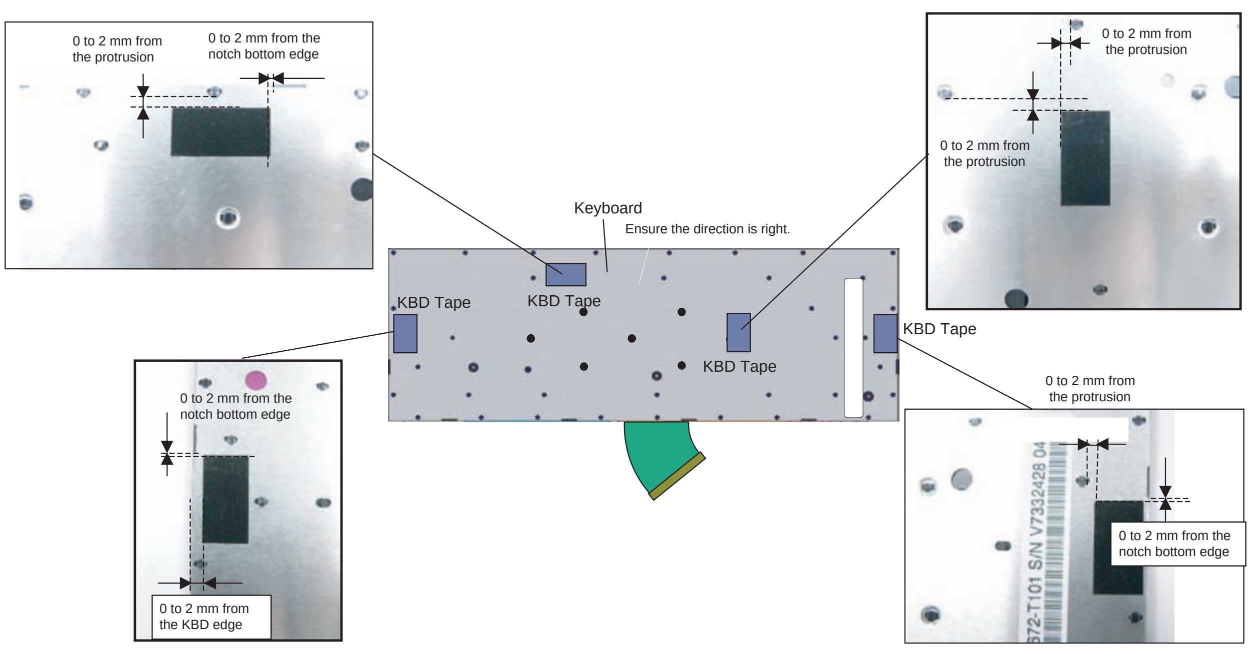
## ■ Cautions for Setting the Keyboard



## ■ Putting of the Palm Rest ASSY

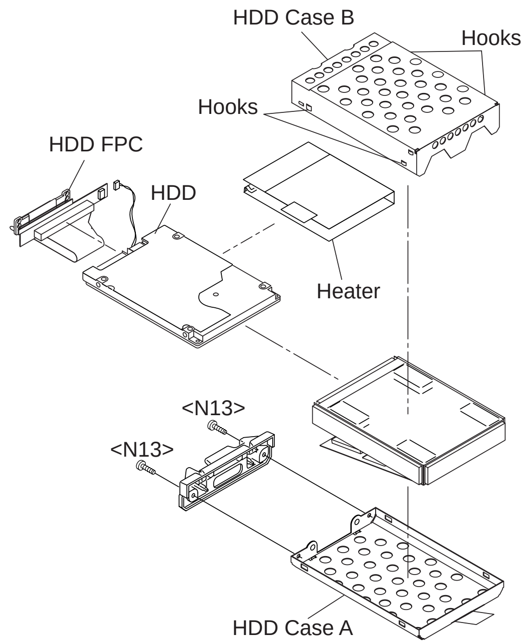



## ■ Putting of the KBD Tape



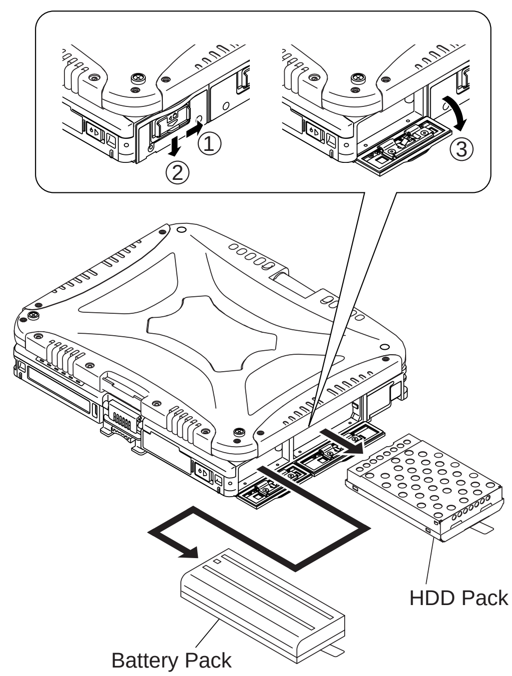
## 9.2.18. Setting the Battery Pack and the HDD Pack

1. Set the HDD in the HDD Case and fix it using the 2 Screws. <N13>

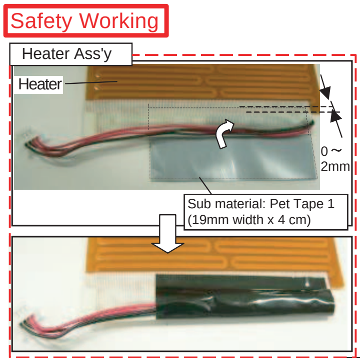


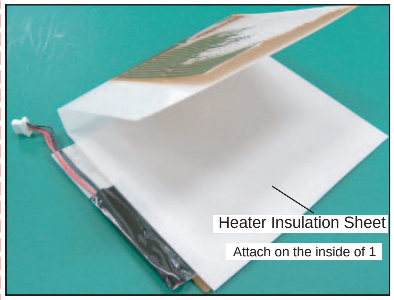

2. Open the HDD Cover and set the HDD Pack.
3. Open the Battery Cover and set the Battery.

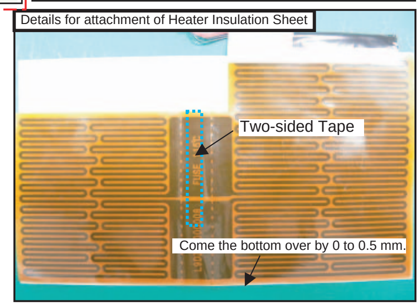
Screws <N13> : DXQT2+D4FNL

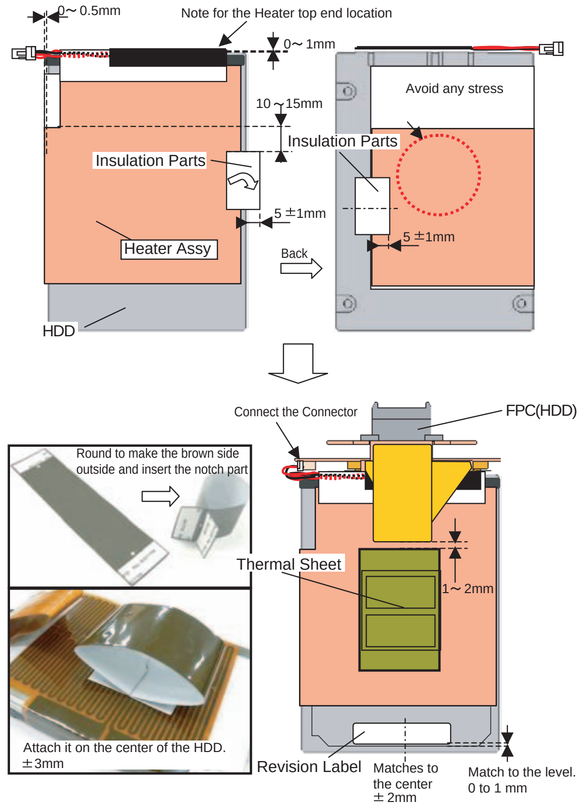


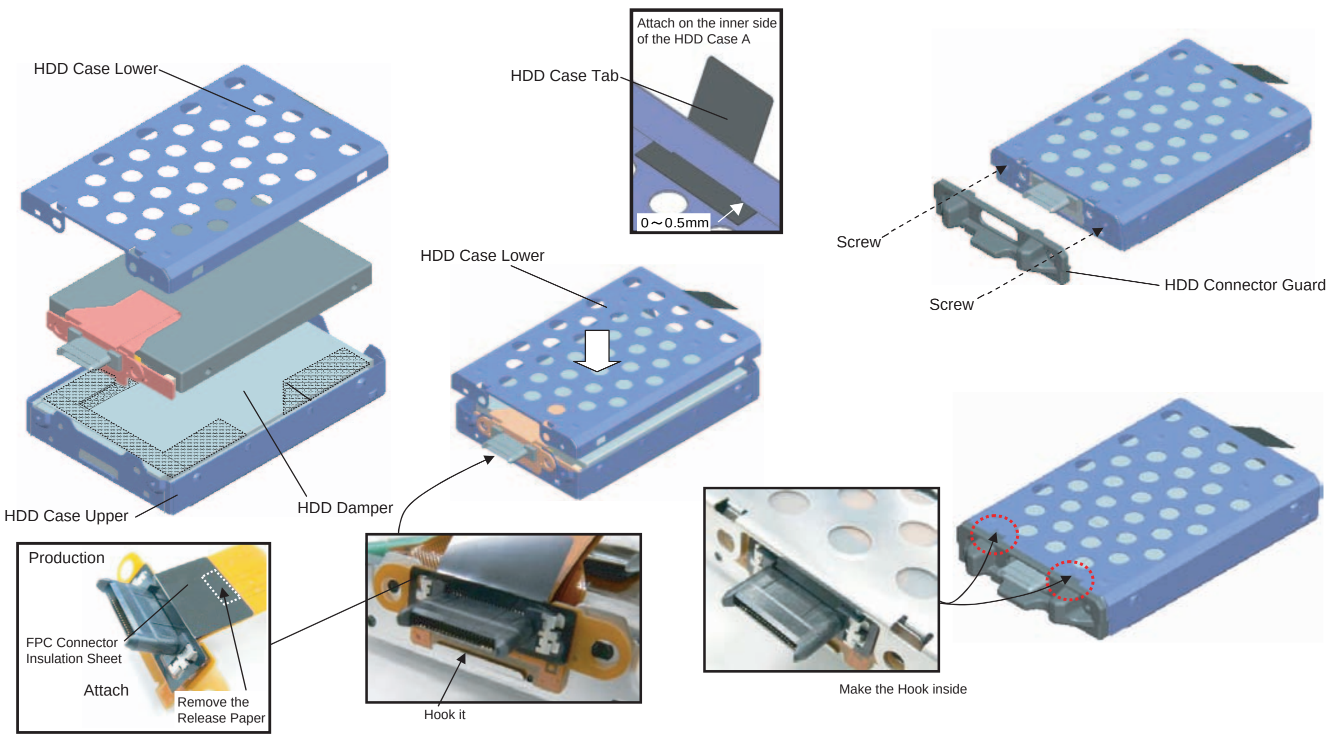
## ■ Assembly of the HDD ASSY



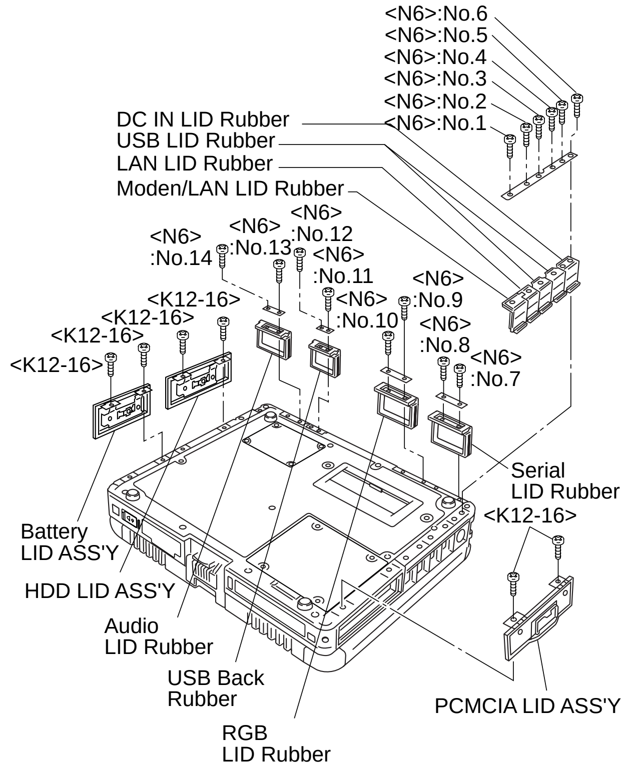
## 9.2.19. Assembling the Each Cover

1. Fix the Battery LID Ass'y, the HDD LID Ass'y, and the PCMCIA LID Ass'y using the 6 Screws. <K12-16>
2. Set the Rear Cabinet.
3. Fix the Modem/LAN LID Rubber, the LAN LID Rubber, the USB LID Rubber, the DC IN LID Rubber, the Serial LID Rubber, the RGB LID Rubber, the Audio LID Rubber and USB Back Rubber using the 14 Screws. <N6>

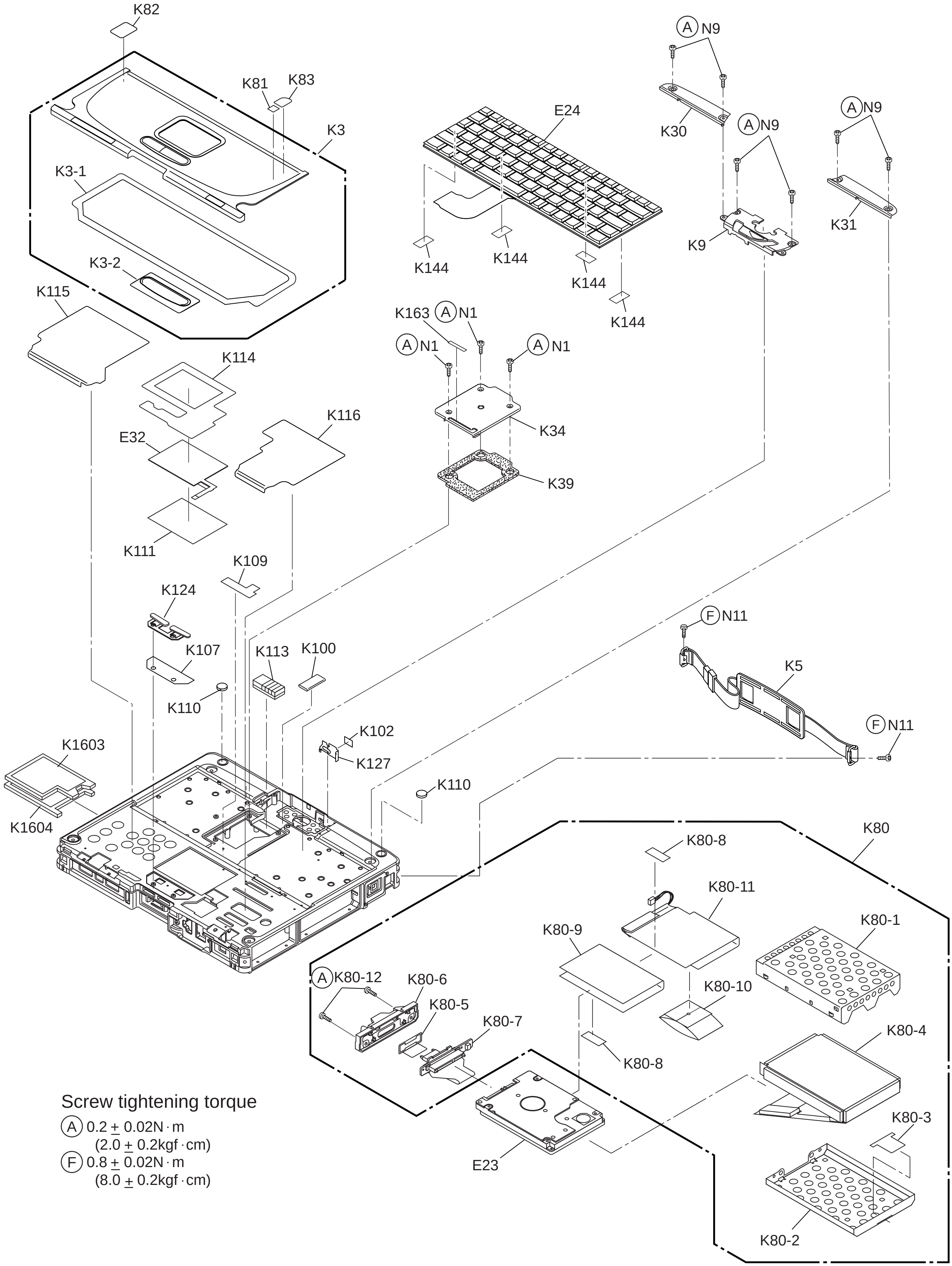
**Note:**

Tighten the Screws in the numbered order (No1 to No14).

Screws <K12-16> : DRQT26+D3FKL
Screw <N6> : DRHM5025YA



# 10 Exploded View

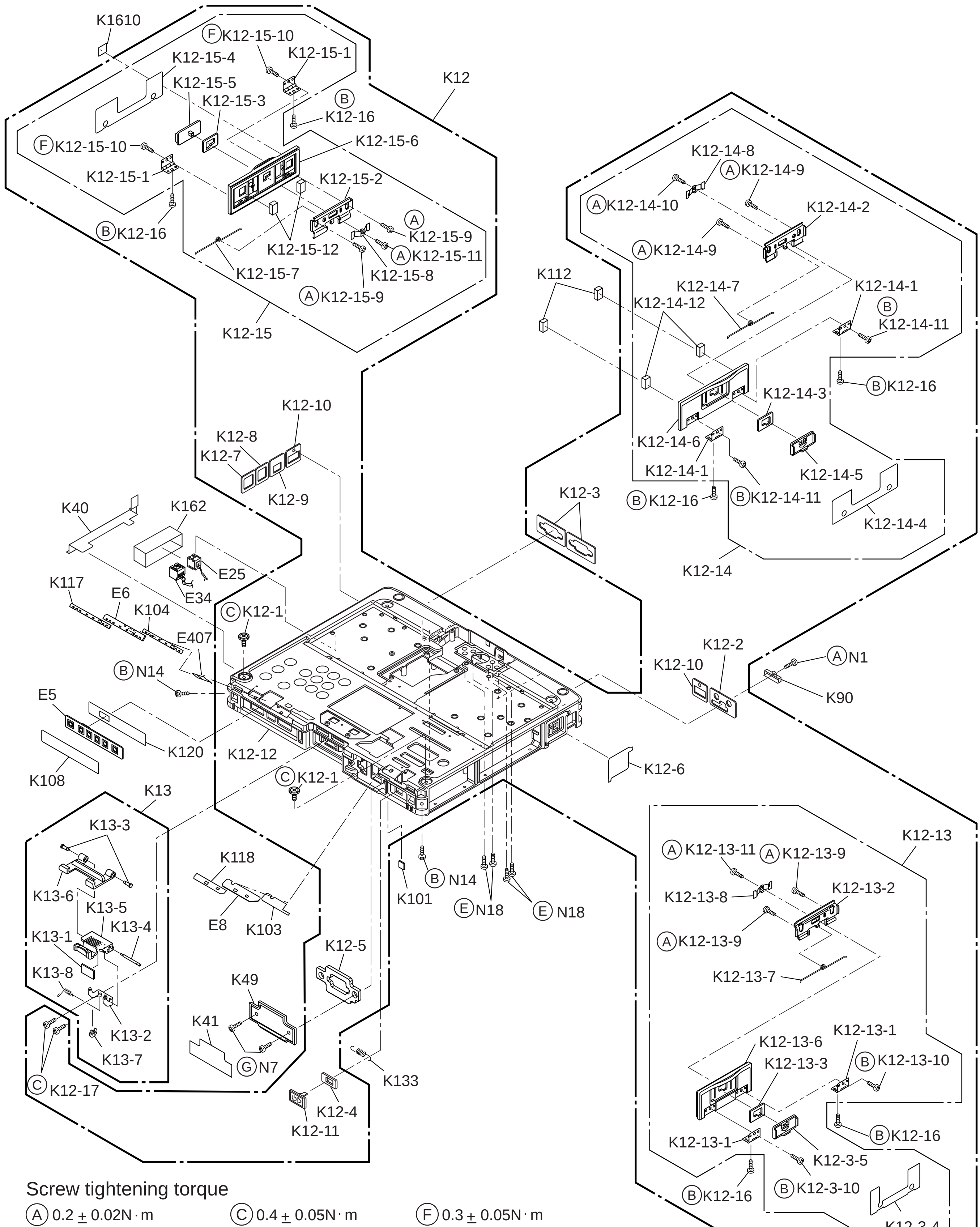



Screw tightening torque

(A) 0.2 ± 0.02N · m
(2.0 ± 0.2kgf · cm)

(F) 0.8 ± 0.02N · m
(8.0 ± 0.2kgf · cm)

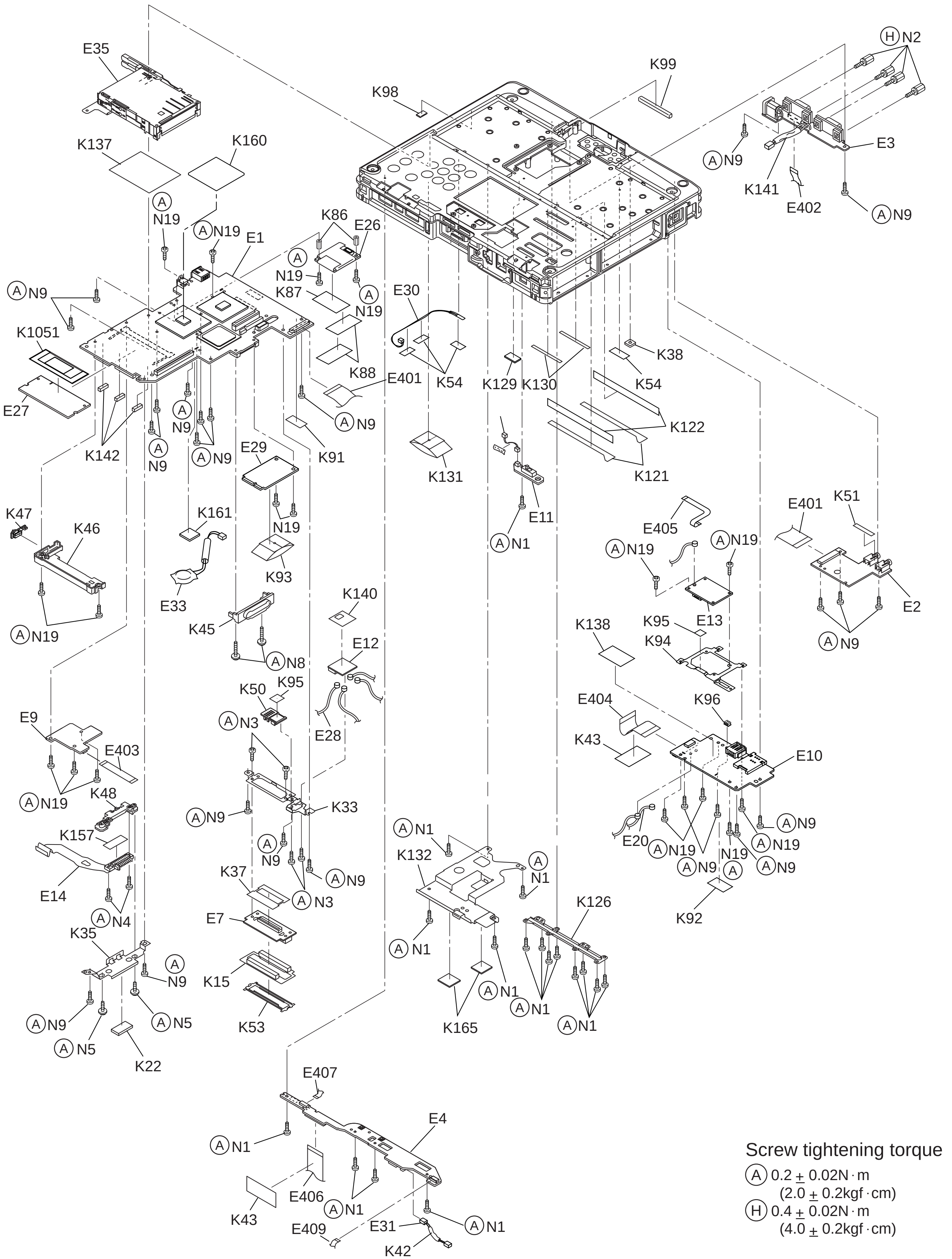
CF-19FHGAXxM




Screw tightening torque

| | | |
|---|---|---|
| (A) 0.2 ± 0.02N · m (2.0 ± 0.2kgf · cm) | (C) 0.4 ± 0.05N · m (4.0 ± 0.5kgf · cm) | (F) 0.3 ± 0.05N · m (3.0 ± 0.5kgf · cm) |
| (B) 0.3 ± 0.03N · m (3.0 ± 0.3kgf · cm) | (E) 1.50 ± 0.15N · m (15.0 ± 1.5kgf · cm) | (G) 0.4 ± 0.02N · m (4.0 ± 0.2kgf · cm) |

CF-19FHGAXxM

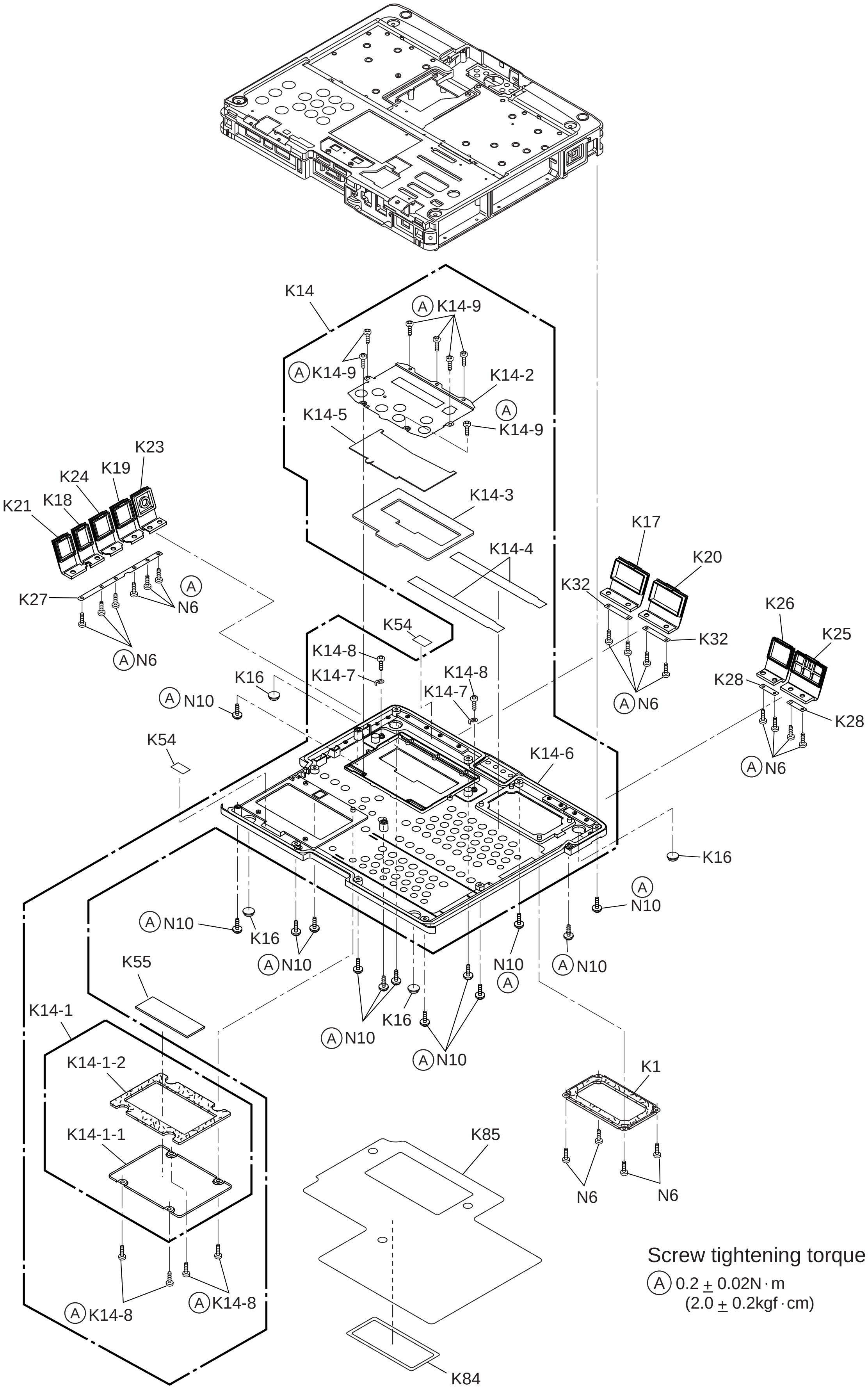



Screw tightening torque

(A) 0.2 ± 0.02N · m
(2.0 ± 0.2kgf · cm)

(H) 0.4 ± 0.02N · m
(4.0 ± 0.2kgf · cm)

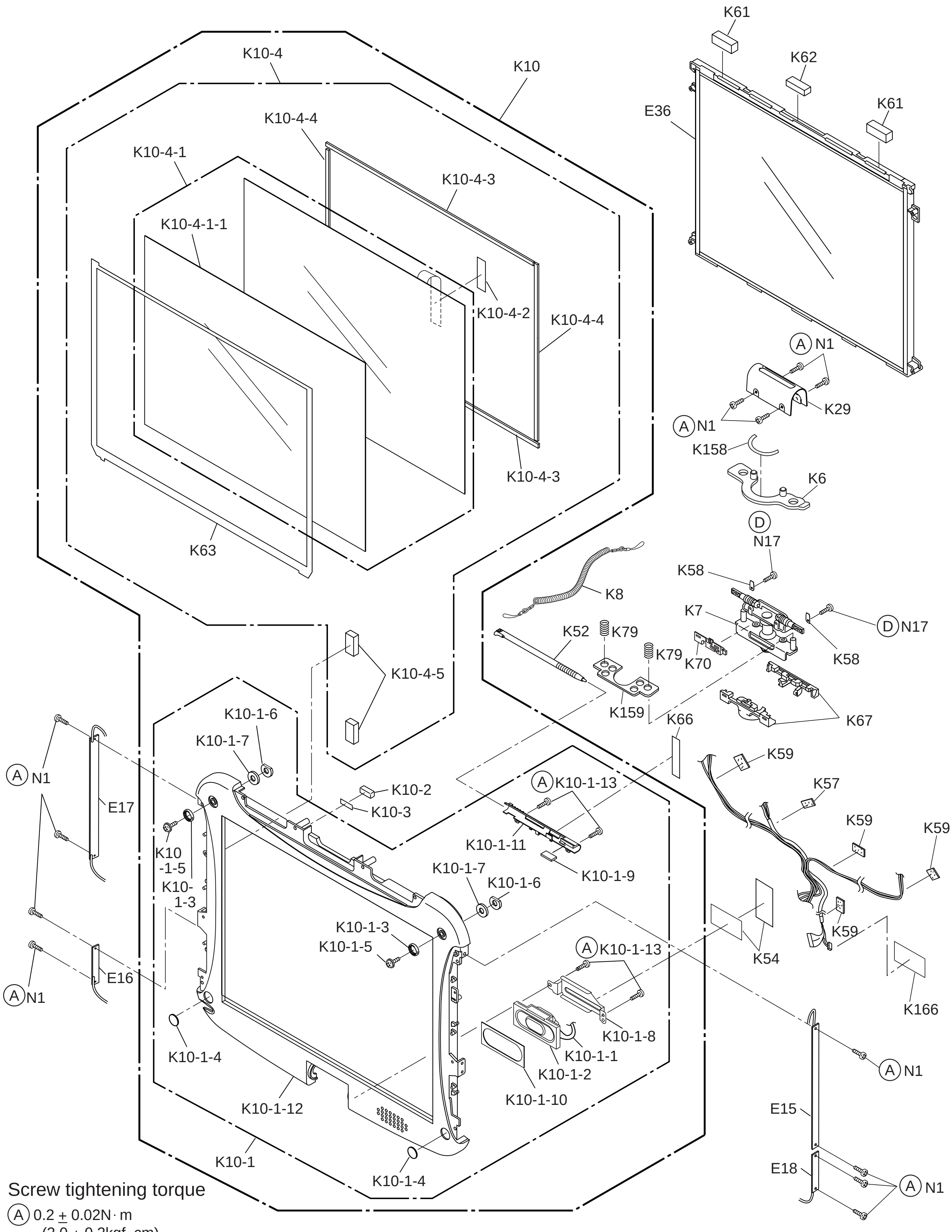
CF-19FHGAXxM




Screw tightening torque

Ⓐ 0.2 ± 0.02N · m
(2.0 ± 0.2kgf · cm)

CF-19FHGAXxM

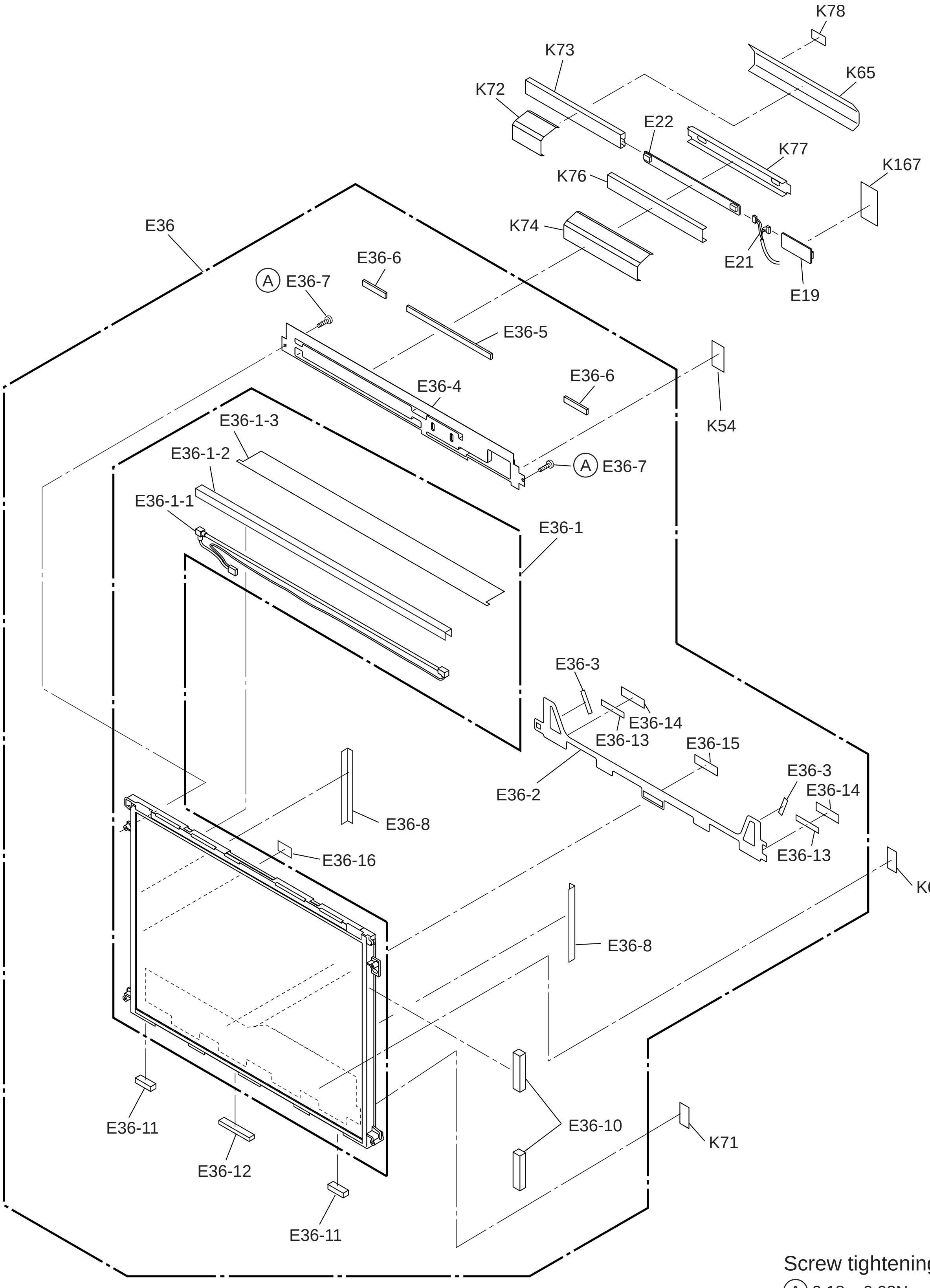



Screw tightening torque

(A) 0.2 ± 0.02N · m
(2.0 ± 0.2kgf · cm)

(D) 0.8 ± 0.08N · m
(8.0 ± 0.8kgf · cm)

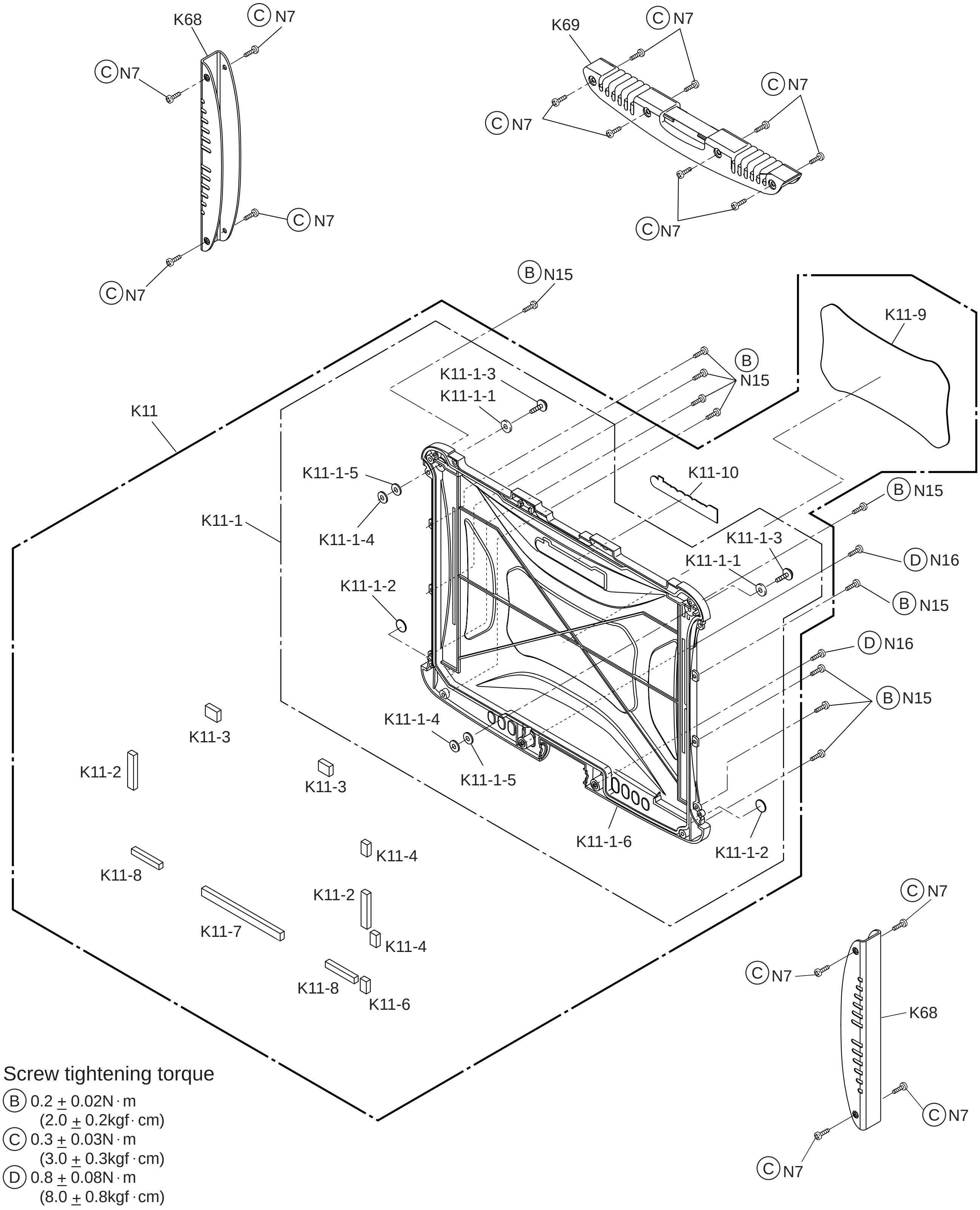
CF-19FHGAXxM




Screw tightening torque

Ⓐ 0.18 ± 0.02N·m
(1.8 ± 0.2kgf·cm)

CF-19FHGAXxM




Screw tightening torque

- (B) 0.2 ± 0.02N·m (2.0 ± 0.2kgf·cm)
- (C) 0.3 ± 0.03N·m (3.0 ± 0.3kgf·cm)
- (D) 0.8 ± 0.08N·m (8.0 ± 0.8kgf·cm)

# Replacement Parts List

**Note : Important Safety Notice**
Components identified by ⚠ mark have special characteristics important for safety.
When replacing any of these components, use only manufacturer's specified parts.

**CF-19FHGAXxM**

NRP: Non Reusable Parts

| REF. NO and OS | | PART NO. | DESCRIPTION | | Q'TY |
|---|---|---|---|---|---|
| **Main Block Unit** | | | | | |
| E1 | | DL31U1633AAA | PCB, MAIN | RTL | 1 |
| E2 | | DL32U1633AAA | PCB, AUDIO | RTL | 1 |
| E3 | | DL33U1633AAA | PCB, IO | RTL | 1 |
| E4 | | DL31U1634AAA | PCB, PAD | RTL | 1 |
| E5 | | DL32U1634AAA | PCB, SW | RTL | 1 |
| E6 | | DL33U1634AAA | PCB, LED-LEFT | RTL | 1 |
| E7 | | DL34U1634AAA | PCB, PR | RTL | 1 |
| E8 | | DL36U1634AAA | PCB, LED-RIGHT | RTL | 1 |
| E9 | | DL37U1634AAA | PCB, SD | RTL | 1 |
| E10 | | DL38U1634AAA | PCB, HSDPA | RTL | 1 |
| E11 | | DL39U1634AAA | PCB, POWERSW | RTL | 1 |
| E12 | | DL3UP1552AAA | PCB, EXT ANT UNIT | RTL | 1 |
| E13 | | DL31U1635AAA | PCB, BT | RTL | 1 |
| E14 | | DL3UP1566AAA | BAT FPC UNIT | | 1 |
| E15 | | DL3U11553AAA | WWAN MAIN ANT | RTL | 1 |
| E16 | | DL3U21553AAA | WWAN AUX ANT | RTL | 1 |
| E17 | | DL3U31553AAA | LAN-MAIN BT ANT | RTL | 1 |
| E18 | | DL3U41553AAA | LAN AUX ANT | RTL | 1 |
| E19 | | DL3UP1605AAA | CF-19 TS PCB UNIT | RTL | 1 |
| E20 | | DFJS1060ZA | WWAN COAXIAL CABLE | | 1 |
| E21 | | DFJS1117ZA | LCD CABLE TS | | 1 |
| E22 | ⚠ | N0GB1J000019 | INVERTER | | 1 |
| E23 | ⚠ | N3CAYYY00030 | HARD DISK | | 1 |
| E24 | | N2AZZY000078 | KEYBOARD VISTA, U.S. | | 1 |
| E25 | | DFJS1120ZA | MODEM CABLE | | 1 |
| E26 | ⚠ | N5HAZ0000014 | MODEM | | 1 |
| E27 | | N5ZZ00000128 | DDR2-667 200PIN SO-DIMM, 1GB | | 1 |
| E28 | | DFJS1059ZA | WLAN COAXIAL CABLE | | 1 |
| E29 | ⚠ | N5HZC0000031 | WIRELESS LAN MODULE | | 1 |
| E30 | | D4CZY103A003 | THERMISTOR | | 1 |
| E31 | | DFJS1043ZA | POWER SW CABLE | | 1 |
| E32 | | N2EABEC00006 | TOUCHPAD | | 1 |
| E33 | | BR-2330A/SF | LITHIUM COIN BATTERY | | 1 |
| E34 | | DFJS1119ZA | LAN CABLE | | 1 |
| E35 | | K1NB94B00001 | EXPRESS PCMCIA COMBO SLOT | | 1 |
| E36 | | DFWV08A0108 | LCD UNIT ASS'Y | | 1 |
| E36-1 | | DL3DW0186AAA | LCD ASS'Y | | 1 |
| E36-1-1 | | A2CA00000056 | LCD BACKLIGHT, CCFGL | | 1 |
| E36-1-2 | | DFHM0290ZA | REFLECTION ANGLE | | 1 |
| E36-1-3 | | DFHR3H12YA | LCD REFLECT TAPE | | 1 |
| E36-2 | | DFHR3612ZA | LCD PWB SPACER | | 1 |
| E36-3 | | DFHR3647YA | SPACER SHEET | | 2 |
| E36-4 | | DFHR3D92YA | LCD BACK DAMPER | | 1 |
| E36-5 | | DFHR3570YA | LCD BACK CUSHION | | 1 |
| E36-6 | | DFHR3571YA | LCD BACK CUSHION S | | 2 |
| E36-7 | | DXHM0042ZA | SCREW | | 2 |
| E36-8 | | DFHR3648ZA | HOLDER SHEET B | | 2 |
| E36-10 | | DFHR3B64ZA | LCD SIDE CUSHION A | | 2 |
| E36-11 | | DFHR3506YA | LCD SIDE CUSHION C | | 2 |
| E36-12 | | DFHR3507YA | LCD SIDE CUSHION D | | 1 |
| E36-13 | | DFHR3G97ZA | LCD BACK SPACER TS | | 2 |
| E36-14 | | DFHR3G99ZA | LCD REAR CUSHION F | | 2 |
| E36-15 | | DFHR3H84ZA | LCD REAR CUSHION I | | 1 |
| E36-16 | | DFMX0383TA | INSULATION PARTS | | 1 |
| E401 | | DFUP1587ZA | FPC, AUDIO 40PIN | | 1 |
| E402 | | DFUP1588ZA | FPC, IO 24PIN | | 1 |

| | | | | | |
|---|---|---|---|---|---|
| E403 | | DFUP1644ZA | FPC, SD(19MK2 SD LAN 24PIN) | | 1 |
| E404 | | DFUP1586ZA | FPC, HSDPA 50PIN | | 1 |
| E405 | | DFUP1645ZA | FPC, BT(19MK2 BT FPC 10PIN) | | 1 |
| E406 | | DFUP1589ZA | FPC, PAD 40PIN | | 1 |
| E407 | | DFUP1591ZA | FPC, LED LEFT 10PIN | | 2 |
| E409 | | DFUP1593ZA | FPC, LED RIGHT 6PIN | | 1 |
| **Accessories** | | | | | |
| A1 | ⚠ | NCR-B/603A | LITHIUM ION BATTERY PACK | | 1 |
| A2 | ⚠ | CF-AA1633AM1 | AC ADAPTOR | | 1 |
| A3 | ⚠ | K2CG3DR00003 | AC CORD | | 1 |
| A4 (A) | ⚠ | DFQW5088ZA | OPERATING INSTRUCTIONS(CF-19MK2) | | 1 |
| A4 (J) | ⚠ | DFQW5097ZA | MANUAL(CF-19MK2 VISTA) | | 1 |
| A5 | | DFJS954ZA | MODEM CABLE | | 1 |
| A6 | | DFHS9017ZA | TOUCHPANEL CLOTH | | 1 |
| A7 (A) | | DFQM8379MA | RECOVERY DVD, VISTA | | 1 |
| A8 | | DFQC9006ZB-0 | SHOULDER BELT ASS'Y | | 1 |
| **Packing Material** | | | | | |
| P1 | | DFPE0733YA | HOLDER | | 1 |
| P2 | | DFPE0859YA | HOLDER | | 1 |
| P3 | | DFPK1210WA | PACKING CASE | | 1 |
| P4 | | DFPK1216YA | ACCESSORY BOX | | 1 |
| **Mechanical Parts** | | | | | |
| K1 | | DFHM9017ZA-0 | EZC LID ASS'Y | | 1 |
| K3 | | DFHR9125ZD-0 | PALM REST ASS'Y | | 1 |
| K3-1 | | DFHR3578ZA | PARMREST TAPE OUTSIDE | NRP | 1 |
| K3-2 | | DFHR3580YA | PARMREST TAPE RUBBER | NRP | 1 |
| K5 | | DFQC9009ZC-0 | STRAP BG ASS'Y | | 1 |
| K6 | ⚠ | DFKE9059YA | LOCK PLATE ASS'Y | | 1 |
| K7 | | DFBH3029UA | HINGE | | 1 |
| K8 | | DFME0148YA | PEN TETHER | | 1 |
| K9 | ⚠ | DFKE9086ZA-0 | HINGE TOP COVER ASM | | 1 |
| K10 | ⚠ | DFWV80A0401 | LCD FRONT CABINET/TS PANEL ASS'Y | | 1 |
| K10-1 | ⚠ | DFKF9033VB-1 | LCD FRONT CASE ASS'Y TS | | 1 |
| K10-1-1 | | DFJS1064ZA | SPEAKER CABLE | | 1 |
| K10-1-2 | | L0AA04C00012 | SPEAKER | | 1 |
| K10-1-3 | | DFHG1634YA-0 | LCD CABINET CUSHION A | NRP | 2 |
| K10-1-4 | | DFHG1635ZA-0 | LCD CABINET CUSHION B | NRP | 2 |
| K10-1-5 | | DFHM0319YA | LCD ELEPASS | | 2 |
| K10-1-6 | | DFHM0321ZA | D WASHER | | 2 |
| K10-1-7 | | DFHM0322ZA | SPRING WASHER | | 2 |
| K10-1-8 | | DFHM0413ZA | SPEAKER PLATE | | 1 |
| K10-1-9 | | DFHR3469ZA | PEN FRICTION SHEET | NRP | 1 |
| K10-1-10 | | DFHR3H08ZA | SPEAKER WP SHEET | NRP | 1 |
| K10-1-11 | | DFHR6282ZB | PEN HOLDER | | 1 |
| K10-1-12 | ⚠ | DFKM0521VA-1 | FRONT CASE TS BLACK | | 1 |
| K10-1-13 | | DRHM5025YAT | SCREW | | 4 |
| K10-2 | | DFHE0805ZA | MAGNET | | 1 |
| K10-3 | | DFHP7149ZA | MAGNET TAPE | NRP | 1 |
| K10-4 | | DFWV84A0308 | TOUCH SCREEN PANEL KIT | | 1 |
| K10-4-1 | | DL3DV0186AAA | TS PANEL ASS'Y | | 1 |
| K10-4-1-1 | | DFHR9071ZA | PROTECTIVE FILM | | 1 |
| K10-4-2 | | DFHR3630ZA | TS FPC SPACER | NRP | 1 |
| K10-4-3 | | DFHR3476ZA | TS SPACER A | NRP | 2 |
| K10-4-4 | | DFHR3477ZA | TS SPACER B | NRP | 2 |
| K10-4-5 | | DFHR3464WA | LCD SIDE CUSHION B TS | NRP | 2 |
| K11 | | DFWV80C0532 | LCD REAR CABINET ASS'Y | | 1 |
| K11-1 | ⚠ | DFKM9039YA-0 | REAR CASE ASS'Y | | 1 |
| K11-1-1 | | DFHG1634YA-0 | LCD CABINET CUSHION A | NRP | 2 |
| K11-1-2 | | DFHG1635ZA-0 | LCD CABNET CUSHION B | NRP | 2 |
| K11-1-3 | | DFHM0319YA | LCD ELEPASS | | 2 |
| K11-1-4 | | DFHM0321ZA | D WASHER | | 2 |
| K11-1-5 | | DFHM0322ZA | SPRING WASHER | | 2 |
| K11-1-6 | ⚠ | DFKM0522YA-0 | REAR CASE | | 1 |
| K11-2 | | DFHR3J19ZA | LCD REAR CUSHION J | NRP | 2 |
| K11-3 | | DFHR3460YA | LCD REAR CUSHION A | NRP | 2 |
| K11-4 | | DFHR3567YA | LCD REAR CUSHION G | NRP | 2 |

| | | | | | |
|---|---|---|---|---|---|
| K11-6 | | DFHR3563YA | LCD REAR CUSHION C | NRP | 1 |
| K11-7 | | DFHR3564YA | LCD REAR CUSHION D | NRP | 1 |
| K11-8 | | DFHR3565YA | LCD REAR CUSHION E | NRP | 2 |
| K11-9 | | DFGB0165YA-0 | TOUGHBOOK BADGE NEW | NRP | 1 |
| K11-10 | | DFGB0131YA-0 | PANASONIC BADGE | | 1 |
| K12 | ⚠ | DFKM9040WA-0 | TOP CASE ASS'Y | | 1 |
| K12-1 | | DFHM0320YA | TOP ELEPASS | | 2 |
| K12-2 | | DFHR3434ZA | AUDIO WATERPROOF SHEET | NRP | 1 |
| K12-3 | | DFHR3440ZA | DSUB WATERPROOF SHEET | NRP | 2 |
| K12-4 | | DFHR3470YA | PSW WATERPROOF SHEET | NRP | 1 |
| K12-5 | | DFHR3D86ZA | FS CASE WP SHEET | NRP | 1 |
| K12-6 | | DFHR3D94YA | GPS HOLE SHEET A | NRP | 1 |
| K12-7 | | DFHR3E15ZA | LAN WP SHEET | NRP | 1 |
| K12-8 | | DFHR3E16ZA | MODEM WP SHEET | NRP | 1 |
| K12-9 | | DFHR3F00ZA | 1394 WP SHEET | NRP | 1 |
| K12-10 | | DFHR3F01ZA | USB BACK WP SHEET | NRP | 2 |
| K12-11 | | DFHR6276ZA-0 | POWER SW KNOB | | 1 |
| K12-12 | ⚠ | DFKM0519WA-0 | TOP CASE | | 1 |
| K12-13 | ⚠ | DFKE9089YA-0 | BAT LID ASS'Y | | 1 |
| K12-13-1 | | DFBH3030ZA | LID HINGE | | 2 |
| K12-13-2 | | DFHM0315YC | LATCH PLATE BATTERY | | 1 |
| K12-13-3 | | DFHR3466YA | LID KNOB SHEET | NRP | 1 |
| K12-13-4 | | DFHR3509YA | BAT COVER SHEET | NRP | 1 |
| K12-13-5 | ⚠ | DFKE0889ZA-0 | LID KNOB | | 1 |
| K12-13-6 | ⚠ | DFKE0891ZA-0 | BAT LID | | 1 |
| K12-13-7 | | DFUN0068XA | LID KNOB SPRING | | 1 |
| K12-13-8 | | DFUS0323ZA | LID KNOB SPRING PLATE | | 1 |
| K12-13-9 | | DRHM0109ZAT | SCREW | | 2 |
| K12-13-10 | | DRQT26+D3KLT | SCREW | | 2 |
| K12-13-11 | | DXQT2+F3FNLT | SCREW | | 1 |
| K12-14 | ⚠ | DFKE9090XA-0 | HDD LID ASS'Y | | 1 |
| K12-14-1 | | DFBH3030ZA | LID HINGE | | 2 |
| K12-14-2 | | DFHM0285XC | LID LATCH PLATE | | 1 |
| K12-14-3 | | DFHR3466YA | LID KNOB SHEET | NRP | 1 |
| K12-14-4 | | DFHR3508YA-0 | HDD COVER SHEET | NRP | 1 |
| K12-14-5 | ⚠ | DFKE0889ZA-0 | LID KNOB | | 1 |
| K12-14-6 | ⚠ | DFKE0890ZA-0 | HDD LID | | 1 |
| K12-14-7 | | DFUN0068XA | LID KNOB SPRING | | 1 |
| K12-14-8 | | DFUS0323ZA | LID KNOB SPRING PLATE | | 1 |
| K12-14-9 | | DRHM0109ZAT | SCREW | | 2 |
| K12-14-10 | | DRQT26+D3KLT | SCREW | | 2 |
| K12-14-11 | | DRHM5025YAT | SCREW | | 1 |
| K12-14-12 | | DFHR6218YA | SPACER | | 2 |
| K12-15 | ⚠ | DFKE9091YA-0 | PCMCIA LID ASS'Y | | 1 |
| K12-15-1 | | DFBH3030ZA | LID HINGE | | 2 |
| K12-15-2 | | DFHM0285XC | LID LATCH PLATE | | 1 |
| K12-15-3 | | DFHR3466YA | LID KNOB SHEET | NRP | 1 |
| K12-15-4 | | DFHR3588RA-0 | PCMCIA LID SHEET | NRP | 1 |
| K12-15-5 | ⚠ | DFKE0889ZA-0 | LID KNOB | | 1 |
| K12-15-6 | ⚠ | DFKE0890ZA-0 | HDD LID | | 1 |
| K12-15-7 | | DFUN0068XA | LID KNOB SPRING | | 1 |
| K12-15-8 | | DFUS0323ZA | LID KNOB SPRING PLATE | | 1 |
| K12-15-9 | | DRHM0109ZAT | SCREW | | 2 |
| K12-15-10 | | DRHM5025YAT | SCREW | | 1 |
| K12-15-11 | | DRQT26+D3KLT | SCREW | | 2 |
| K12-15-12 | | DFHR6218YA | SPACER | | 2 |
| K12-16 | | DRQT26+D3KLT | SCREW | | 6 |
| K12-17 | | DXQT3+F4FNLT | SCREW | | 2 |
| K13 | ⚠ | DFKE9092YA-0 | TABLET LATCH ASS'Y | | 1 |
| K13-1 | | DFHG1669ZA | TABLET LATCH SHEET | NRP | 1 |
| K13-2 | | DFHM0291ZA | TABLET LATCH PLATE | | 1 |
| K13-3 | | DFHM0294WA | TABLET LATCH PIN | | 2 |
| K13-4 | | DFHM0295ZA | TABLET LATCH SHAFT | | 1 |
| K13-5 | ⚠ | DFKE0892ZA-0 | TABLET LATCH KNOB | | 1 |
| K13-6 | ⚠ | DFKE0893YA-0 | TABLET LATCH LEVER | | 1 |
| K13-7 | | DFNW1604ZA | CUT WASHER | | 1 |

| | | | | | |
|---|---|---|---|---|---|
| K13-8 | | DFUN0069XA | LATCH KNOB SPRING | | 1 |
| K14 | ⚠ | DFKM9041XA-0 | BOTTOM CASE ASS'Y | | 1 |
| K14-1 | | DFHM9016ZA-0 | DIMM LID ASS'Y | | 1 |
| K14-1-1 | | DFHM0401ZA-0 | DIMM LID | | 1 |
| K14-1-2 | | DFHR3E14ZA | DIMM LID WP SHEET | NRP | 1 |
| K14-2 | | DFHM0410YA | DU LID ANGLE | | 1 |
| K14-3 | | DFHR3441ZA | DU LID WATERPROOF SHEET | NRP | 1 |
| K14-4 | | DFHR3F64ZA | HDD BOTTOM SHEET | | 2 |
| K14-5 | | DFHR6283ZB-0 | DU LID | | 1 |
| K14-6 | ⚠ | DFKM0518XA-0 | BOTTOM CASE | | 1 |
| K14-7 | | DFUS0316ZA | PLATE SPRING GUIDE PIN | | 2 |
| K14-8 | | DRHM5025YAT | SCREW | | 6 |
| K14-9 | | DXQT2+D25FNL | SCREW | | 7 |
| K15 | | DFHE1019YA | DU CON SPONGE | | 1 |
| K16 | | DFHG1209ZA | RUBBER HOOT | | 4 |
| K17 | | DFHG1996ZA-0 | SERIAL LID RUBBER | | 1 |
| K18 | | DFHG1638ZB-0 | MODEM LID RUBBER | | 1 |
| K19 | | DFHG1998ZA-0 | USB LID RUBBER | | 1 |
| K20 | | DFHG1997ZA-0 | RGB LID RUBBER | | 1 |
| K21 | | DFHG1660ZB-0 | LAN LID RUBBER | | 1 |
| K22 | | DFHG1790ZA | BAT CUSHION | | 1 |
| K23 | | DFHG1902ZA-0 | DC-IN LID RUBBER | | 1 |
| K24 | | DFHG1903ZB-0 | 1394 LID RUBBER | | 1 |
| K25 | | DFHG1906ZA-0 | AUDIO LID RUBBER | | 1 |
| K26 | | DFHG1907YB-0 | USB LID RUBBER 2 | | 1 |
| K27 | | DFHM0286YB | LID RUBBER PLATE A | | 1 |
| K28 | | DFHM0288ZB | LID RUBBER PLATE C | | 2 |
| K29 | | DFHM0296XA-0 | LCD HINGE COVER(SILVER) | | 1 |
| K30 | | DFHM0302XA-1 | KEYBOARD PLATE(L) | | 1 |
| K31 | | DFHM0303XA-0 | KEYBOARD PLATE(R) | | 1 |
| K32 | | DFHM0311ZB | LID RUBBER PLATE B | | 2 |
| K33 | | DFHM0403XA | DU CNT ANGLE | | 1 |
| K34 | | DFHM0406ZA | KBD CNT LID | | 1 |
| K35 | | DFHM0407ZA | BAT CON ANGLE | | 1 |
| K37 | | DFHR3487YA | PORTRE SHEET | NRP | 1 |
| K38 | | DFHR3636ZA | CABLE HOLD SHEET | NRP | 1 |
| K39 | | DFHR3D91ZA | KB CNT LID WP SHEET | NRP | 1 |
| K40 | | DFHR3E03ZA | SD BLIND SHEET | NRP | 1 |
| K41 | | DFHR3E53ZA | FS SCREW SHEET | NRP | 1 |
| K42 | | DFHR3F62ZA | POWER SWITCH CABLE SHEET | NRP | 1 |
| K43 | | DFHR3G19ZA | INSULATION SHEET | NRP | 2 |
| K45 | | DFHR6246ZA | HDD GUIDE | | 1 |
| K46 | | DFHR6284ZA | DIMM HOLDER | | 1 |
| K47 | | DFHR6286ZA-0 | RF SW KNOB | | 1 |
| K48 | | DFHR6289YA | BAT CON HOLDER | | 1 |
| K49 | | DFHR6290ZA-0 | FS DUMMY CASE | | 1 |
| K50 | | DFHR6312ZA | ANT CABLE HOLDER | | 1 |
| K51 | | DFHR7946ZA | MP GUIDE SHEET | NRP | 1 |
| K52 | | DFHR9081ZA | PEN | | 1 |
| K53 | | DFMC0870YA | DU SPRING | | 1 |
| K54 | | DFMX0383TA | INSULATION PARTS | | 9 |
| K55 | | DFMY0419ZA | DIMM THERMAL RUBBER | | 1 |
| K57 | | DFHE0915ZA | EMI SHEET 10X20 | NRP | 1 |
| K58 | | DFHM0325ZA | CABLE HOLD PLATE | | 2 |
| K59 | | DFHR3432ZA | ANT CABLE CUSHION | NRP | 4 |
| K61 | | DFHR3573YA | LCD SIDE CUSHION E | NRP | 2 |
| K62 | | DFHR3574YA | LCD SIDE CUSHION F | NRP | 1 |
| K63 | | DFHR3638XA | DG TAPE | | 1 |
| K65 | | DFHR3G16ZA | INSULATION SHEET 30X140 | NRP | 1 |
| K66 | | DFHR3G42ZA | TAPE PEN HOLDER | | 2 |
| K67 | | DFHR6277ZA-0 | CABLE HOLDER | | 2 |
| K68 | | DFHR6320ZA-0 | ANT COVER | | 2 |
| K69 | | DFHR6279YA-0 | TABLET LATCH COVER | | 1 |
| K70 | | DFHR6298ZA | HINGE CABLE HOLDER | | 1 |
| K71 | | DFMC0685ZA | LCD CONDUCTIVE TAPE | NRP | 1 |
| K72 | | DFMC0816ZA | INV MIL SHEET | | 1 |

| | | | | |
|---|---|---|---|---|
| K73 | DFMC0877YA | INVERTER CASE | | 1 |
| K74 | DFMC0878ZA | INVERTER SHIELD SHEET | NRP | 1 |
| K76 | DFMX1267ZA | INVERTER CASE(BASE) | | 1 |
| K77 | DFMX1268ZA | INVERTER CASE(LOWER) | | 1 |
| K78 | DFQT6077YA | CAUTION LABEL | | 1 |
| K79 | DFUQ0100ZA | LOCK SPRING | | 2 |
| K80 | DFWV99A0124 | HDD MOUNTING KIT | | 1 |
| K80-1 | DFHM0404ZB | HDD CASE UPPER | | 1 |
| K80-2 | DFHM0416YA | HDD CASE LOWER | | 1 |
| K80-3 | DFHR3589ZA | HDD CASE TAB | | 1 |
| K80-4 | DFHR3H58ZA | HDD DAMPER | | 1 |
| K80-5 | DFHR3F54ZA | HDD CON SHEET | | 1 |
| K80-6 | DFHR6297ZA | HDD CONNECTOR GUARD | | 1 |
| K80-7 | DL3UP1564CAA | HDD FPC UNIT | | 1 |
| K80-8 | DFMX0383TA | INSULATION PARTS | NRP | 2 |
| K80-9 | DFMX1265ZA | INSULATION SHEET(HDD HEATER) | NRP | 1 |
| K80-10 | DFMY3208ZA | WLAN SHEET | NRP | 1 |
| K80-11 ⚠ | L9DZYY000008 | HEATER(HDD) | | 1 |
| K80-12 | DXQT2+D4FNL | SCREW | | 2 |
| K81 | DFQT0045ZA | ENERGY STAR LABEL | | 1 |
| K82 | DFQT9A29ZA | WINDOWS VISTA | | 1 |
| K83 | DFQT9981ZA | CENTRINO DUO LABEL | | 1 |
| K84 | DFQT0055YA | COA SERIAL LAMINATE | NRP | 1 |
| K85 ⚠ | DFGT1094YA | RATED LABEL | | 1 |
| K86 | DFHD04H004YB | HEXAGON SPACER H=4.2MM | | 2 |
| K87 | DFHR3F85ZA | MODEM CABLE SHEET | NRP | 1 |
| K88 | DFMC0881ZA | BUSTERAID MODEM | NRP | 2 |
| K90 | DFHM0309YA-1 | SIM LOCK PLATE | | 1 |
| K91 | DFHR3G18ZA | BIS HEAD SHEET | NRP | 1 |
| K92 | DFHR3G24ZA | BIS HEAD SHEET 2 | NRP | 1 |
| K93 | DFMY3224ZA | WLAN SHEET | NRP | 1 |
| K94 | DFHM0412ZA | RF-BT PLATE | | 1 |
| K95 | DFHR3154ZA | LCD CABLE TAPE | NRP | 1 |
| K96 | DFHR5484ZA | CLAMP | | 1 |
| K98 | DFHE0326XA | GASKET-65TSV10-4-15 | | 1 |
| K99 | DFHE0811YA | GASKET-65TSV4-3-50 | | 1 |
| K100 | DFHE1031ZA | GASKET-65TSV13-1.5-20 | | 1 |
| K101 | DFHG1962ZA | POWER SPRING SHEET | NRP | 1 |
| K102 | DFHP7200ZA | AHDESIVE TAPE | NRP | 1 |
| K103 | DFHP7256ZB | RF LED PWB TAPE | NRP | 1 |
| K104 | DFHP7257ZB | LED PWB TAPE | NRP | 1 |
| K107 | DFHR3438ZA | CLICK BUTTON SHEET | NRP | 1 |
| K108 | DFHR3483SA | OPERATION SHEET | | 1 |
| K109 | DFHR3J80ZA | KB WP SHEET | NRP | 1 |
| K110 | DFHR3642YA | LCD CUSHION SHEET | NRP | 2 |
| K111 | DFHR3643ZA | TP BOTTOM TAPE | NRP | 1 |
| K112 | DFHR3655YA | HDD CASE SPACER | | 2 |
| K113 | DFHR3D90ZA | KB CNT HOLE CUSHION | NRP | 1 |
| K114 | DFHR3D93ZB | TP WP SHEET | NRP | 1 |
| K115 | DFHR3D97ZA | LED PWB TAPE | NRP | 1 |
| K116 | DFHR3E02ZA | PALM REST WP SHEET R | NRP | 1 |
| K117 | DFHR3E19ZA | LED SYAKOU SHEET | NRP | 1 |
| K118 | DFHR3E34ZA | RF SYAKOU SHEET | NRP | 1 |
| K120 | DFHR3F55ZA | OPERATION TAPE | NRP | 1 |
| K121 | DFHR3F65ZA | PC SHEET | NRP | 2 |
| K122 | DFHR3F66ZB | PET SHEET | NRP | 2 |
| K124 | DFHR6044XA | CLICK BUTTON PLATE | | 1 |
| K126 | DFMD2182ZA | PLATE HEAT PIPE | | 1 |
| K127 | DFMD3125ZA | BACK PLATE KENSINGTON 2 | | 1 |
| K129 | DFMY0278YA | THERMAL SHEET | NRP | 1 |
| K130 | DFMY0473ZA | CPU HEAT PIPU RUBBER | NRP | 2 |
| K131 | DFMY3208ZA | WLAN SHEET | NRP | 1 |
| K132 | DFMY5039ZA | HEAT PIPE UNIT | | 1 |
| K133 | DFUQ0111ZA | POWER SW SPRING | | 1 |
| K137 | DFMY3234ZA | THERMAL DIFFUSION SHEET | NRP | 1 |
| K140 | DFHR3488ZA | ANTENNA SHEET | NRP | 1 |

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|---|---|---|---|---|
| K141 | DFHG429YA | IO DC TUBE | | 1 |
| K142 | DFHR3G38ZA | DIMM CUSHION | | 3 |
| K144 | DFHP7270ZA | ADHESIVE TAPE | NRP | 4 |
| K157 | DFMX1339ZA | BAT INSULATION SHEET | NRP | 1 |
| K158 | DFHR3J82ZA | LCD CABLE PROTECTER | | 1 |
| K159 | DFHR6352ZA | CABLE GUIDE HINGE | | 1 |
| K160 | DFHR3F89ZA | MCH SHEET | NRP | 1 |
| K161 | DFHR3H64ZA | COIN BAT SHEET | NRP | 1 |
| K162 | DFHR6353ZA | LAN CONN HOLDER | | 1 |
| K163 | DFMC0901ZA | GASKET-65TSV13-1(T9)-1.9 | | 1 |
| K164 | DFMY0472ZA | THERMAL RUBBER CPU | | 1 |
| K165 | DFMY0475ZA | ICH RUBBER | | 2 |
| K166 | DFHR3650ZA | WATERPROOF SHEET | NRP | 1 |
| K167 | DFHR3H95ZA | LCD TS PWB SHEET | NRP | 1 |
| K1051 | DFMY3264YA | DIMM THERMAL SHEET | NRP | 1 |
| K1603 | DFHR6339ZA-0 | DUMMY EXPRESS CARD | | 1 |
| K1604 | DFHR6340ZA-0 | DUMMY PC CARD | | 1 |
| K1610 | DFHR3J11ZA | PCMCIA DUMMY CARD CUSHION | | 1 |
| N1 | DFHE5025XA | SCREW | | 33 |
| N2 | DFHE5058ZB | SCREW | | 4 |
| N3 | DFHE5108ZA | SCREW | | 4 |
| N4 | DRHM0112ZA | SCREW | | 2 |
| N5 | DRHM0115ZA | SCREW | | 2 |
| N6 | DRHM5025YA | SCREW | | 18 |
| N7 | DRQT26+E5FKL | SCREW | | 18 |
| N8 | DRSB2+10FKL | SCREW | | 2 |
| N9 | DRSB2+5FKL | SCREW | | 27 |
| N10 | DRHM0061ZA | SCREW | | 13 |
| N11 | DRYN3+J6FKL | SCREW | | 2 |
| N14 | DRQT3+E4FKL | SCREW | | 2 |
| N15 | DXYN2+J6FNL | SCREW | | 10 |
| N16 | DXYN3+J10FNL | SCREW | | 2 |
| N17 | DXYN3+J8FNL | SCREW | | 2 |
| N18 | DXYN4+J8FNL | SCREW | | 4 |
| N19 | XSB2+3FNL | SCREW | | 17 |

# Replacement Parts List

Note: Important Safety Notice
Components identified by ⚠ mark have special characteristics important for safety.
When replacing any of these components use only manufacturer's specified parts.

**CF-19FHGAXxM**

| REF. NO and AREA | PART NO. | DESCRIPTION | Q'TY |
|---|---|---|---|
| **MAIN PCB** | | | |
| C 1, 135, 136, 137, 197, 198, 268, 279, 281, 328, 376 | F1J0J4750019 | CAPACITOR, 6.3V, 4.7µF | 11 |
| C 2, 3, 4, 5, 6, 9, 50, 51, 55, 56, 57, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 152, 153, 154, 155, 159, 161, 163, 165, 168, 169, 170, 171, 174, 176, 178, 180, 185, 187, 190, 205, 206, 230, 231, 232, 233, 234, 235, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 272, 282, 283, 289, 290, 300, 301, 302, 309, 313, 314, 316, 317, 318, 320, 323, 327, 334, 346, 351, 356, 375, 393, 394, 396, 397, 398, 399, 400, 401, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 415, 416, 417, 418, 419, 420, 421, 424, 428, 429, 432, 439, 450, 451, 453, 454, 459, 460, 461, 462, 463, 470, 471, 472, 488, 490, 500, 501, 502, 503, 507, 508, 510, 512, 513, 514, 516, 520, 521, 522, 523, 524, 601, 607, 642, 646, 656, 698 | F1G1C104A042 | CAPACITOR, 16V, 0.1µF | 154 |
| C 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 45, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 158, 160, 162, 164, 173, 175, 177, 179, 186, 189, 249, 250, 251, 252, 253, 254, 288, 319, 344, 345, 347, 370, 371, 372, 378, 379, 380, 381, 437, 473, 511, 515, 723, 742, 743 | F1J0J106A016 | CAPACITOR, 6.3V, 10µF | 81 |
| C 42, 78, 79, 80, 81, 83, 247, 248 | EEFCX0D221R | CAPACITOR, 2V, 220µF | 8 |
| C 46, 306, 307, 325, 422, 431, 433, 489, 491, 492, 616, 628, 631, 635, 653, 655, 657, 669, 686, 688, 693, 706, 713, 754, 755, 756, 757, 758 | F1G1H102A496 | CAPACITOR, 50V, 1000pF | 28 |
| C 58, 59, 138, 139, 140, 141, 142, 143, 144, 145, 150, 157, 166, 181, 199, 200, 201, 202, 203, 204, 269, 270, 271, 388, 509 | F1H0J1050022 | CAPACITOR, 6.3V, 1µF | 25 |

| | | | | |
|---|---|---|---|---|
| C 97, 255, 256, 315, 321, 336, 337, 340, 341, 342, 343, 386, 387, 389, 390, 525, 603, 726, 740, 751, 768 | | F1H1A1050015 | CAPACITOR, 10V, 1µF | 21 |
| C 98, 99, 100, 101, 102, 103, 104 | | F1G0J474A001 | CAPACITOR, 6.3V, 0.47µF | 7 |
| C 105, 106, 107, 108, 109, 110, 111, 112, 258 | | F1J0J226A051 | CAPACITOR, 6.3V, 22µF | 9 |
| C 113, 114, 115, 191, 192, 193, 194, 259, 260, 261, 262, 263, 276, 277, 278, 293, 303, 304, 305, 308, 312, 326, 332, 350, 373, 374, 438, 485, 600, 615, 626, 636, 640, 720 | | F1G1E103A062 | CAPACITOR, 25V, 0.01µF | 34 |
| C 116, 117, 118, 119, 120, 121, 122, 123 | | F1G0J224A001 | CAPACITOR, 6.3V, 0.22µF | 8 |
| C 124 | | F1G1H330A542 | CAPACITOR, 50V, 33pF | 1 |
| C 126, 127, 128, 129, 130, 131, 132, 133, 236, 265, 266, 267 | | F1G0J105A001 | CAPACITOR, 6.3V, 1µF | 12 |
| C 195, 196 | | F1G1H150A542 | CAPACITOR, 50V, 15pF | 2 |
| C 211, 222, 223, 224, 225, 226, 227, 228, 383, 384, 385, 425, 426, 427 | | F1G1A104A014 | CAPACITOR, 10V, 0.1µF | 14 |
| C 257, 264 | | F1G1H3R0A543 | CAPACITOR, 50V, 3pF | 2 |
| C 273 | | EEFCX0J121R | CAPACITOR | 1 |
| C 329, 330 | | F1G1H120A542 | CAPACITOR, 50V, 12pF | 2 |
| C 331, 671 | | F1J1E334A081 | CAPACITOR, 25V, 0.33µF | 2 |
| C 333 | | F1G1H271A495 | CAPACITOR, 50V, 270pF | 1 |
| C 348, 349, 630, 651, 684, 695, 703, 709 | | F1G1H221A495 | CAPACITOR, 50V, 220pF | 8 |
| C 382, 643, 644, 645 | | F1G1C473A004 | CAPACITOR, 16V, 0.047µF | 4 |
| C 391, 392 | | F1G1H4R0A543 | CAPACITOR, 50V, 4pF | 2 |
| C 423 | | F1G1E472A062 | CAPACITOR, 25V, 4700pF | 1 |
| C 435, 606, 627, 634, 658, 685, 692, 702, 705, 725, 765, 767, 769, 770 | | F1H1H104A748 | CAPACITOR, 50V, 0.1µF | 14 |
| C 455, 456, 457, 458, 604 | | F1J1E105A009 | CAPACITOR, 25V, 1µF | 5 |
| C 484, 487 | | F1G1A683A014 | CAPACITOR, 10V, 0.068µF | 2 |
| C 506, 624, 650, 687, 715, 749 | | F1G1H1010005 | CAPACITOR, 50V, 100pF | 6 |
| C 609, 610, 611, 612, 613, 614 | | F1H1H103A748 | CAPACITOR, 50V, 0.01µF | 6 |
| C 620, 621 | | EEFCX0J101R | CAPACITOR, 6.3V, 100µF | 2 |
| C 623, 638, 662, 663, 674, 696, 701, 716, 746, 772, 773, 775, 776, 777, 778, 779, 782, 783, 784, 785 | | F1K1E1060001 | CAPACITOR, 25V, 10µF | 20 |
| C 625, 682, 712, 759 | | F1H1C224A074 | CAPACITOR, 16V, 0.22µF | 4 |
| C 629, 632, 637, 690, 710 | | F1G1H220A542 | CAPACITOR, 50V, 22pF | 5 |
| C 633, 654, 660, 691, 711 | | F1J0J475A009 | CAPACITOR, 6.3V, 4.7µF | 5 |
| C 639 | | EEFCX0G151R | CAPACITOR, 2V, 150µF | 1 |
| C 647 | | EEFCD0J470ER | CAPACITOR, 6.3V, 47µF | 1 |
| C 652, 760 | | F1G1H561A496 | CAPACITOR, 50V, 560pF | 2 |
| C 659 | | F1H1H222A748 | CAPACITOR, 50V, 2200pF | 1 |
| C 661, 744 | | F1G1H470A542 | CAPACITOR, 50V, 47pF | 2 |
| C 664, 665, 672, 747 | | EEFSX0D471XE | SPCAP | 4 |
| C 668, 761 | | F1G1H151A495 | CAPACITOR, 50V, 150pF | 2 |
| C 670, 745 | | F1G1H331A496 | CAPACITOR, 50V, 330pF | 2 |
| C 673, 752 | | F1H1H1830001 | CAPACITOR, 50V, 0.018µF | 2 |
| C 680, 697, 700, 724 | | EEFCD0D101ER | CAPACITOR, 2V, 100µF | 4 |
| C 683, 714 | | F1G1H472A496 | CAPACITOR, 50V, 4700pF | 2 |
| C 689, 708 | | F1G1H471A496 | CAPACITOR, 50V, 470pF | 2 |
| C 694, 704 | | F1G1H182A496 | CAPACITOR, 50V, 1800pF | 2 |
| C 707 | | F1G1H100A544 | CAPACITOR, 50V, 10pF | 1 |
| C 717 | | EEFSX0D331ER | CAPACITOR, 2V, 330µF | 1 |
| C 753 | | F1G1H222A496 | CAPACITOR, 50V, 2200pF | 1 |

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|---|---|---|---|---|
| C 766 | | F1G1H152A496 | CAPACITOR, 50V, 1500pF | 1 |
| CF 1, 2, 3 | | D4CC1103A038 | THERMISTOR | 3 |
| CN 2 | | K1MYL0B00003 | CONNECTOR | 1 |
| CN 4 | | K1NAF0D00003 | CONNECTOR | 1 |
| CN 5 | | K1KY42B00001 | CONNECTOR | 1 |
| CN 6 | | K1FY104BA024 | CONNECTOR, USB | 1 |
| CN 8 | | K1KA20AA0261 | CONNECTOR | 1 |
| CN 9, 21, 42 | | K1MY24BA0310 | CONNECTOR | 3 |
| CN 10 | | K1MYL0B00004 | CONNECTOR | 1 |
| CN 11 | | K1MY52BA0190 | CONNECTOR | 1 |
| CN 14 | | K1KA02B00292 | CONNECTOR | 1 |
| CN 15 | | K1MY30AA0158 | FPC CONNECTOR | 1 |
| CN 16 | | K1MN50AA0018 | CONNECTOR | 1 |
| CN 17 | | K1KA20A00310 | CONNECTOR | 1 |
| CN 18 | | K1MN26AA0074 | CONNECTOR | 1 |
| CN 20 | | K1MY04AA0041 | CONNECTOR | 1 |
| CN 22 | | K2HZ104B0014 | CONNECTOR | 1 |
| CN 23 | | K1MY40A00001 | CONNECTOR | 1 |
| CN 24 | | K1KY12A00005 | CONNECTOR | 1 |
| CN 25 | | K1KYA0A00019 | CONNECTOR | 1 |
| CN 27 | | K1MN40B00048 | CONNECTOR | 1 |
| CN 33 | | K1KA02BA0014 | CONNECTOR | 1 |
| D 2, 3, 8 | | MA2J72900L | DIODE | 3 |
| D 4 | | B0JDBE000002 | DIODE | 1 |
| D 5, 600 | | B0JCPD000023 | DIODE | 2 |
| D 6 | | B0KB00000044 | DIODE | 1 |
| D 9, 10, 11 | | MA3J14700L | DIODE | 3 |
| D 601, 602, 603 | | B0ADDH000004 | DIODE | 3 |
| D 604 | | MAZ81200ML | DIODE | 1 |
| D 605 | | MAZ81800ML | DIODE | 1 |
| D 606, 622 | | MA3S132E0L | DIODE | 2 |
| D 608 | | B0JCQD000001 | DIODE | 1 |
| D 609, 626, 631 | | B0JCMD000010 | DIODE | 3 |
| D 610, 627, 630 | | B0JDAE000004 | DIODE | 3 |
| D 612, 613, 614, 615, 617, 618, 623 | | MAZ80510ML | DIODE | 7 |
| D 616 | | MAZ80620ML | DIODE | 1 |
| D 619, 621 | | MA2S11100L | DIODE | 2 |
| D 620 | | B2ABAM000002 | DIODE | 1 |
| D 624 | | B0JCRC000002 | DIODE | 1 |
| D 632, 635 | | B0JCMD000014 | DIODE | 2 |
| F 1 | ⚠ | K5H502Z00003 | FUSE, 5A, 32V | 1 |
| F 2, 3, 4, 5, 8 | ⚠ | K5H202Z00005 | FUSE, 2A, 32V | 5 |
| F 10 | ⚠ | K5H802300002 | FUSE, 8A, 72V | 1 |
| F 600 | ⚠ | K5H103300003 | FUSE, 10A, 72V | 1 |
| IC 1 | | C2GBD0000037 | CPU | 1 |
| IC 2 | | C1CB00002802 | CHIPSET | 1 |
| IC 3 | | C0JBBZ000319 | PLL | 1 |
| IC 4 | | C1CB00002741 | CHIPSET ICH8M | 1 |
| IC 5 | | C1CB00002585 | IC | 1 |
| IC 6 | | C1CB00002732 | LAN CONTROLLER | 1 |
| IC 7 | | C3EBFY000002 | SERIAL EEPROM | 1 |
| IC 8 | | C1DB00001159 | IC, PERIPHERAL LSI | 1 |
| IC 9 | | C0CBCBC00137 | IC, REGULATOR | 1 |
| IC 10 | | C1CB00002540 | IC, TEMPERATURE CENSOR IC | 1 |
| IC 11 | | C0DBZYY00017 | IC | 1 |
| IC 12, 19 | | C0DBZYY00026 | IC, USB POWER SW | 2 |
| IC 14 | | C0DBZYY00265 | POWER MANAGEMENT SWTICH | 1 |
| IC 15 | | C3EBDY000005 | IC, EEPROM | 1 |
| IC 16 | | C0DBZYY00016 | IC | 1 |
| IC 18, 32, 34, 35 | | C0JBAZ002422 | IC, FET SWITCH | 4 |
| IC 20 | | C0ZBZ0000978 | IC | 1 |
| IC 21, 22 | | C0JBAS000218 | IC, LOGIC | 2 |

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|---|---|---|---|---|
| IC 23, 24, 25, 71 | | C0EBE0000460 | IC | 4 |
| IC 26 | | C0EBH0000457 | IC | 1 |
| IC 27 | | C2CBJA000003 | IC, MICON | 1 |
| IC 30 | | C3FBLY000048 | FLASH MEMORY | 1 |
| IC 31 | | C1CB00002790 | IC, SECURITY CHIP | 1 |
| IC 33, 51, 52 | | C0JBAA000345 | IC, LOGIC | 3 |
| IC 41 | | C0JBAA000380 | IC | 1 |
| IC 42 | | C1CB00002723 | CARDBUS CONTOLLER | 1 |
| IC 46, 55, 56, 57, 59, 67, | | C0JBAA000362 | IC, LOGIC | 7 |
| IC 50 | | C0JBAZ002192 | IC | 1 |
| IC 53 | | C0JBAC000363 | GATE LOGIC | 1 |
| IC 54 | | C0JBAC000367 | IC, LOGIC | 1 |
| IC 58 | | C0JBAE000321 | IC, LOGIC | 1 |
| IC 60 | | C0DBAYY00282 | DC/DC CONTROLLER FOR GMCH | 1 |
| IC 65 | | C0DBGYY00422 | LINEAR REGULATOR | 1 |
| IC 66 | | C0DBGYY00423 | LINEAR REGULATOR | 1 |
| IC 68 | | C0JBAR000500 | IC, SWITCH | 1 |
| IC 70 | | C0DBEFE00003 | IC | 1 |
| IC 600 | | C0ABZA000047 | IC, AMP | 1 |
| IC 601 | | C0ABBA000093 | IC, OP AMP | 1 |
| IC 602 | | C0DBAYY00194 | IC, DC/DC | 1 |
| IC 603 | | C0JBAD000236 | IC, LOGIC | 1 |
| IC 604 | | C0JBAB000621 | IC, LOGIC | 1 |
| IC 605 | | C0DBEFH00002 | IC, REGULATOR | 1 |
| IC 607 | | C0EBE0000333 | IC | 1 |
| IC 608 | | C0DBDJH00009 | IC, LINER | 1 |
| IC 610, 611, 612 | | C0DBALH00003 | IC | 3 |
| L 4, 5, 6, 9, 10, 11, 12, 13, 29, 53 | | J0JJC0000021 | INDUCTOR | 10 |
| L 7, 17, 40, 41, 47, 48, 51, 52, 60, 61 | | J0MAB0000200 | INDUCTOR | 10 |
| L 14 | | G1C91NM00001 | INDUCTOR | 1 |
| L 15, 16 | | G1C1R0Z00002 | INDUCTOR | 2 |
| L 20, 21, 22, 23, 24, 25 | | J0JDC0000044 | CHIP BEADS | 6 |
| L 28 | | G1C100K00011 | INDUCTOR | 1 |
| L 30, 31 | | G1C1R0MA0076 | INDUCTOR | 2 |
| L 35, 36, 49 | | J0JHC0000074 | INDUCTOR | 3 |
| L 42, 43, 44 | | J0JDC0000045 | INDUCTOR | 3 |
| L 50 | | J0JDC0000105 | CHIP BEADS | 1 |
| L 600 | | G1C4R7MA0240 | CHOK COIL | 1 |
| L 601, 604 | | G1C100Z00023 | COIL | 2 |
| L 602 | | G1CR60MA0299 | COIL | 1 |
| L 603 | | G1C2R7Z00003 | COIL | 1 |
| L 605, 606 | | G1C4R7Z00013 | INDUCTOR | 2 |
| L 609 | | G1CR82M00006 | COIL | 1 |
| L 610 | | G1A160HA0032 | COIL | 1 |
| PA 2 | ⚠ | D4FB1R100015 | PROTECTOR 1.1A | 1 |
| Q 1, 2, 646, 657, 659, 661 | | B1CFGD000023 | TRANSISTOR | 6 |
| Q 3, 6, 13, 20, 29, 40, 608, 619, 641, 643, 649, 655, 656 | | B1GBCFJN0037 | TRANSISTOR | 13 |
| Q 4, 39, 620 | | B1GDCFNN0031 | TRANSISTOR | 3 |
| Q 5, 8, 28 | | B1MBDCA00004 | TRANSISTOR | 3 |
| Q 9, 10, 11, 21, 26, 31, 33, 630 | | B1DHDC000028 | TRANSISTOR | 8 |
| Q 12, 14, 15, 17, 18, 19 | | B1MBBCA00003 | TRANSISTOR | 6 |
| Q 22, 24, 36, 37, 610, 621, 631 | | B1GBCFNN0042 | TRANSISTOR | 7 |
| Q 25, 32, 623, 624, 625, 626, 628, 629 | | XP0421300L | TRANSISTOR | 8 |
| Q 27 | | B1GFCFNN0019 | TRANSISTOR | 1 |
| Q 30, 603, 604, 606, 607 | | B1CHRD000001 | TRANSISTOR | 5 |
| Q 34, 35 | | B1CFFB000001 | TRANSISTOR | 2 |
| Q 51 | | 2SB0766ARL | TRANSISTOR | 1 |
| Q 600, 601, 602 | | XP0421400L | TRANSISTOR | 3 |

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|---|---|---|---|---|
| Q 611, 639, 650 | | B1CFGD000003 | TRANSISTOR | 3 |
| Q 613, 618, 633, 636, 638, 642, 647, 648, 652, 653, 660 | | B1CFRD000014 | FET | 11 |
| Q 614, 640, 645 | | B1MBEDG00001 | FET | 3 |
| Q 622, 627 | | B1CHRC000009 | FET | 2 |
| Q 634, 635 | | B1CFRD000025 | FET | 2 |
| Q 658 | | B1MBEDA00008 | TRANSISTOR | 1 |
| R 3, 5, 20, 52, 53, 56, 192, 213, 214, 215, 216, 231, 232, 274, 366, 434, 480, 481 | | ERJ2GEJ102X | RESISTOR, 1/16W, 1KΩ | 18 |
| R 7, 21, 22, 32, 41, 158, 199, 210, 234, 239, 241, 317, 331, 370, 396, 492, 499, 604, 625, 692, 693, 707, 711, 715, 717, 720, 732, 814, 840, 841 | | ERJ2GE0R00X | RESISTOR, 1/16W, 0Ω | 30 |
| R 8, 33, 73, 74, 75, 695, 703, 797, 798 | | ERJ2RKF1001X | RESISTOR, 1/16W, 1KΩ | 9 |
| R 9, 10, 34, 35 | | ERJ2RKF54R9X | RESISTOR, 1/16W, 54.9Ω | 4 |
| R 11, 12, 37, 95, 96 | | ERJ2RKF1000X | RESISTOR, 1/16W, 100Ω | 5 |
| R 13, 39 | | ERJ2RKF2001X | RESISTOR, 1/16W, 2KΩ | 2 |
| R 14 | | D1H85104A024 | RESISTOR ARRAY | 1 |
| R 15, 16 | | ERJ2RKF27R4X | RESISTOR, 1/16W, 27.4Ω | 2 |
| R 24, 609, 612, 613, 824 | | ERJ2GEJ562X | RESISTOR, 1/16W, 5.6KΩ | 5 |
| R 25, 26 | | ERJ2GEJ560X | RESISTOR, 1/16W, 56Ω | 2 |
| R 27, 157, 324, 638, 639, 651, 652, 734, 735, 745, 746, 762, 763, 774, 775 | | ERJ2GEJ100X | RESISTOR, 1/16W, 10Ω | 15 |
| R 28 | | ERJ2RKF56R0X | RESISTOR, 1/16W, 56Ω | 1 |
| R 29 | | ERJ2RKF68R0X | RESISTOR, 1/16W, 68Ω | 1 |
| R 30 | | ERJ2GEJ240X | RESISTOR, 1/16W, 24Ω | 1 |
| R 36, 72, 180, 225 | | ERJ2RKF24R9X | RESISTOR, 1/16W, 24.9Ω | 4 |
| R 38 | | ERJ2RKF2210X | RESISTOR, 1/16W, 221Ω | 1 |
| R 40, 154, 155, 156, 486, 504, 505 | | D1H81034A024 | RESISTOR ARRAY | 7 |
| R 61, 226 | | ERJ2GEJ203X | RESISTOR, 1/16W, 20KΩ | 2 |
| R 65, 66, 450, 451 | | ERJ2GEJ222X | RESISTOR, 1/16W, 2.2KΩ | 4 |
| R 67, 68, 177, 369, 520, 523, 530 | | ERJ2GEJ330X | RESISTOR, 1/16W, 33Ω | 7 |
| R 69 | | ERJ2RHD3001X | RESISTOR, 1/16W, 3KΩ | 1 |
| R 70, 71 | | ERJ2RKF20R0X | RESISTOR, 1/16W, 20Ω | 2 |
| R 76, 77, 325, 497 | | ERJ2RKF1002X | RESISTOR, 1/16W, 10KΩ | 4 |
| R 78 | | ERJ2RKF1301X | RESISTOR, 1/16W, 1.3KΩ | 1 |
| R 82 | | ERJ2RKF2371X | RESISTOR, 1/16W, 2370Ω | 1 |
| R 83 | | ERJ2RKF3920X | RESISTOR, 1/16W, 392Ω | 1 |
| R 90, 91, 150, 153, 174, 175, 204, 220, 261, 280, 289, 290, 291, 297, 298, 302, 316, 319, 322, 323, 335, 336, 365, 367, 388, 389, 452, 453, 454, 473, 474, 489, 498, 507, 521, 525, 527, 529, 531, 533, 615, 641, 646, 713, 733, 737, 741, 765, 771, 805, 820 | | ERJ2GEJ103X | RESISTOR, 1/16W, 10KΩ | 51 |
| R 92, 93, 94, 337, 721, 722, 789, 791 | | ERJ3GEY0R00V | RESISTOR, 1/16W, 0Ω | 8 |
| R 97, 98, 99, 247, 248, 249 | | ERJ2GEJ1R0X | RESISTOR, 1/16W, 1Ω | 6 |
| R 100, 101, 103, 130, 131, 133 | | D1HA56080001 | RESISTOR ARRAY | 6 |
| R 102, 132, 333 | | D1H85604A024 | RESISTOR ARRAY | 3 |
| R 135 | | ERJ6GEYJ101V | RESISTOR, 1/10W, 100Ω | 1 |
| R 159, 160, 242, 243 | | D1H83304A024 | RESISTOR ARRAY | 4 |
| R 171 | | ERJ2RKF22R6X | RESISTOR, 1/16W, 22.6Ω | 1 |
| R 172, 173 | | ERJ2RKF3241X | RESISTOR, 1/16W, 3240Ω | 2 |

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|---|---|---|---|---|
| R 178, 286, 704 | | ERJ2GEJ471X | RESISTOR, 1/16W, 470Ω | 3 |
| R 181 | | D1HA1048A001 | RESISTOR ARRAY | 1 |
| R 182 | | D1H81504A024 | RESISTOR ARRAY | 1 |
| R 205, 206, 211 | | D1H84724A024 | RESISTOR ARRAY | 3 |
| R 207 | | D1H81044A024 | RESISTOR, 1/16W, 100KΩ | 1 |
| R 208, 209 | | ERJ2RKF4530X | RESISTOR, 1/16W, 453Ω | 2 |
| R 221, 364 | | ERJ2GEJ334X | RESISTOR, 1/16W, 330KΩ | 2 |
| R 227, 311, 391, 392, 423, 470, 472, 493, 494, 495, 602, 603, 668, 669, 670, 673, 674, 675, 676, 683, 694, 802, 803 | | ERJ2GEJ101X | RESISTOR, 1/16W, 100Ω | 23 |
| R 228, 229 | | ERJ2RKF3323X | RESISTOR, 1/16W, 332KΩ | 2 |
| R 230 | | ERJ2GEJ106X | RESISTOR, 1/16W, 10MΩ | 1 |
| R 244, 245, 246, 253, 293, 475, 476, 477, 478, 479, 482, 483, 500, 501, 502, 503 | | D1HA1038A001 | RESISTOR ARRAY | 16 |
| R 250, 395, 618, 662, 671 | | ERJ2GEJ105X | RESISTOR, 1/16W, 1MΩ | 5 |
| R 251 | | ERJ2GEJ121X | RESISTOR, 1/16W, 120Ω | 1 |
| R 252, 401, 402, 403, 832 | | ERJ2GEJ472X | RESISTOR, 1/16W, 4.7KΩ | 5 |
| R 263, 265, 266, 267, 268, 269, 272, 273, 300, 301, 304, 305, 314, 320, 329, 363, 393, 394, 430, 431, 432, 433, 617, 619, 620, 621, 661, 665, 667, 672 | | ERJ2GEJ104X | RESISTOR, 1/16W, 100KΩ | 30 |
| R 279, 292 | | D1H81024A024 | RESISTOR ARRAY | 2 |
| R 281, 282, 283, 284, 285, 287, 288, 294, 295, 296, 780 | | ERJ2GEJ221X | RESISTOR, 1/16W, 220Ω | 11 |
| R 332 | | ERJ2GEJ331X | RESISTOR, 1/16W, 330Ω | 1 |
| R 334 | | ERJ2GEJ512X | RESISTOR, 1/16W, 5.1KΩ | 1 |
| R 380, 381, 382, 383, 384, 385, 386, 387 | | ERJ2RKF49R9X | RESISTOR, 1/16W, 49.9Ω | 8 |
| R 400 | | ERJ2RHD303X | RESISTOR, 1/16W, 30KΩ | 1 |
| R 404 | | ERJ2RKF4871X | RESISTOR, 1/16W, 4.87KΩ | 1 |
| R 405, 406, 605, 608 | | ERJ2RHD103X | RESISTOR, 1/16W, 10KΩ | 4 |
| R 420, 421, 422, 677, 742, 770, 793, 794, 795, 796 | | ERJ2GEJ223X | RESISTOR, 1/16W, 22KΩ | 10 |
| R 490, 496, 506 | | ERJ2RKF3901X | RESISTOR, 1/16W, 3.9KΩ | 3 |
| R 491 | | ERJ2RKF5602X | RESISTOR, 1/16W, 56KΩ | 1 |
| R 601 | | D1ZZ00000046 | RESISTOR, 1W, 5mΩ | 1 |
| R 606, 611, 706 | | ERJ2RKF1003X | RESISTOR, 1/16W, 100KΩ | 3 |
| R 607, 610, 809 | | ERJ2RKF1503X | RESISTOR, 1/16W, 150KΩ | 3 |
| R 614 | | ERJ3GEYJ3R3V | RESISTOR, 1/16W, 3.3Ω | 1 |
| R 616, 636, 681 | | ERJ2GEJ473X | RESISTOR, 1/16W, 47KΩ | 3 |
| R 622, 623 | | D1BDR1000002 | RESISTOR, 1/8W, 0.1Ω | 2 |
| R 624 | | D1BDR068A100 | RESISTOR, 0.068Ω | 1 |
| R 626 | | ERJ3GEYJ562V | RESISTOR, 1/16W, 5.6KΩ | 1 |
| R 630 | | ERJ2RKF1102X | RESISTOR, 1/16W, 11KΩ | 1 |
| R 631 | | ERJ2RKF1302X | RESISTOR, 1/16W, 13KΩ | 1 |
| R 634, 654, 761, 778 | | D1BDR022A099 | RESISTOR, 1/3W, 0.022Ω | 4 |
| R 635, 731, 839 | | D1BDR018A099 | RESISTOR, 1/3W, 0.018Ω | 3 |
| R 637, 663, 747, 752, 776, 822 | | ERJ2GEJ474X | RESISTOR, 1/16W, 470KΩ | 6 |
| R 640, 736, 764 | | ERJ2GEJ153X | RESISTOR, 1/16W, 15KΩ | 3 |
| R 642, 738, 766, 799, 800 | | ERJ3GEYJ100V | RESISTOR, 1/16W, 10Ω | 5 |
| R 643 | | ERA3YEB622V | RESISTOR, 1/16W, 6.2KΩ | 1 |
| R 644, 829, 830 | | ERA3YKB104V | RESISTOR, 1/16W, 100KΩ | 3 |
| R 645, 768, 842 | | ERA3YEB203V | RESISTOR, 1/16W, 20KΩ | 3 |
| R 647 | | ERJ2GEJ333X | RESISTOR, 1/16W, 33KΩ | 1 |
| R 648 | | ERJ3RBD303V | RESISTOR, 1/16W, 30KΩ | 1 |
| R 649 | | ERJ3RBD103V | RESISTOR, 1/16W, 10KΩ | 1 |
| R 650 | | ERJ3RBD132V | RESISTOR, 1/16W, 1.3KΩ | 1 |

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|---|---|---|---|---|
| R 653, 749, 760, 777, 779, 833 | | D1BDR033A099 | RESISTOR, 1/3W, 0.033Ω | 6 |
| R 664 | | ERJ2GEJ684X | RESISTOR, 1/16W, 680KΩ | 1 |
| R 666 | | ERJ2GEJ225X | RESISTOR, 1/16W, 2.2MΩ | 1 |
| R 678, 682 | | ERJ6GEYJ122V | RESISTOR, 1/10W, 1.2KΩ | 2 |
| R 679, 680 | | ERJ6GEYJ222V | RESISTOR, 1/10W, 2.2KΩ | 2 |
| R 690 | | ERJ2GEJ393X | RESISTOR, 1/16W, 39KΩ | 1 |
| R 696 | | ERJ2RKF1800X | RESISTOR, 1/16W, 180Ω | 1 |
| R 699 | | ERJ2RKF4702X | RESISTOR, 1/16W, 47KΩ | 1 |
| R 700, 801 | | ERJ2RKF6801X | RESISTOR, 1/16W, 6.80KΩ | 2 |
| R 701 | | ERJ2RKF5103X | RESISTOR, 1/16W, 510KΩ | 1 |
| R 702, 708, 714 | | ERJ3GEYJ1R0V | RESISTOR, 1/16W, 1Ω | 3 |
| R 709 | | ERJ2RHD222X | RESISTOR, 1/16W, 2.2KΩ | 1 |
| R 710 | | ERJ2RKF5101X | RESISTOR, 1/16W, 5.1KΩ | 1 |
| R 712 | | ERJ2RKF3601X | RESISTOR, 1/16W, 3.6KΩ | 1 |
| R 716, 810 | | ERJ3GEYJ101V | RESISTOR, 1/16W, 100Ω | 2 |
| R 718, 790 | | ERJ3GEYJ2R2V | RESISTOR, 1/16W, 2.2Ω | 2 |
| R 719, 808 | | D1ZZ00000093 | RESISTOR, 1W, 1mΩ | 2 |
| R 739 | | ERJ2RKF4701X | RESISTOR, 1/16W, 4.7KΩ | 1 |
| R 740, 744, 772 | | ERJ2RKF1502X | RESISTOR, 1/16W, 15KΩ | 3 |
| R 743 | | ERJ2RKF7501X | RESISTOR, 1/16W, 7.5KΩ | 1 |
| R 748 | | ERJ2RKF1101X | RESISOTR, 1/16W, 1.1KΩ | 1 |
| R 751 | | D1BDR016A099 | RESISTOR, 1/3W, 0.016Ω | 1 |
| R 767 | | ERA3YEB621V | RESISTOR, 1/16W, 620Ω | 1 |
| R 769, 835 | | ERA3YEB243V | RESISTOR, 1/16W, 24KΩ | 2 |
| R 773 | | ERJ2RKF1202X | RESISTOR, 1/16W, 12KΩ | 1 |
| R 792, 813 | | ERJ2RKF6981X | RESISTOR, 1/16W, 6.98KΩ | 2 |
| R 806 | | ERJ2RKF4022X | RESISTOR, 1/16W, 40.2KΩ | 1 |
| R 807 | | D1H8R0040009 | JUMPER | 1 |
| R 811 | | ERJ2RKF1691X | RESISTOR, 1/16W, 1.69KΩ | 1 |
| R 812 | | ERJ2GEJ303X | RESISTOR, 1/16W, 30KΩ | 1 |
| R 815 | | ERJ3GEYJ104V | RESISTOR, 1/16W, 100KΩ | 1 |
| R 817 | | ERJ2RKF1433X | RESISTOR, 1/16W, 143KΩ | 1 |
| R 821 | | ERJ2RKD114X | RESISTOR, 1/16W, 110KΩ | 1 |
| R 823 | | ERJ2RHD3652X | RESISTOR, 1/16W, 36.5KΩ | 1 |
| R 825 | | ERJ2GEJ154X | RESISTOR, 1/16W, 150KΩ | 1 |
| R 826, 827 | | ERJ2RHD302X | RESISTOR, 1/16W, 3KΩ | 2 |
| R 831, 836, 843 | | ERA3YEB333V | RESISTOR, 1/16W, 33KΩ | 3 |
| SW 2 | | K0D112B00071 | SW | 1 |
| X 1 | | H0J143500058 | OSCILLATOR, 14.318MHz | 1 |
| X 2 | | H0J327200115 | OSCILLATOR, 32.768KHz | 1 |
| X 3 | | H0J245500083 | XTAL | 1 |
| X 4 | | H0J250500076 | XTAL | 1 |
| X 5 | | H2D800400015 | OSCILLATOR, 8MHz | 1 |
| ZA 1, 2, 5, 6, 7, 10, 11 | | K1YGZZ000060 | SPACER | 7 |
| **AUDIO PCB** | | | | |
| C 900, 906, 916, 917, 934, 935 | | F1G1A104A014 | CAPACITOR, 10V, 0.1µF | 6 |
| C 901, 903, 943, 948 | | F1H1A225A039 | CAPACITOR, 10V, 2.2µF | 4 |
| C 902, 907, 908, 912, 915, 918, 919, 932, 944 | | F1G0J224A001 | CAPACITOR, 6.3V, 0.22µF | 9 |
| C 909 | | F1G1E103A062 | CAPACITOR, 25V, 0.01µF | 1 |
| C 910, 928, 929, 930, 931 | | F1H1A1050015 | CAPACITOR, 10V, 1µF | 5 |
| C 911, 922, 937, 938, 951 | | F1J0J106A016 | CAPACITOR, 6.3V, 10µF | 5 |
| C 913 | | F1G1H221A495 | CAPACITOR, 50V, 220pF | 1 |
| C 914, 920, 921, 952 | | F1G1C104A042 | CAPACITOR, 16V, 0.1µF | 4 |
| C 923, 924 | | F1H0J1050022 | CAPACITOR, 6.3V, 1µF | 2 |
| C 925, 939, 940 | | F1G1H102A496 | CAPACITOR, 50V, 1000pF | 3 |
| C 926, 927 | | F1H1A474A028 | CAPACITOR, 10V, 0.47µF | 2 |
| C 933, 941, 946 | | F1G1H1010005 | CAPACITOR, 50V, 100pF | 3 |
| C 936 | | F1G0J105A001 | CAPACITOR, 6.3V, 1µF | 1 |
| C 942, 945 | | F1G1H471A496 | CAPACITOR, 50V, 470pF | 2 |
| C 949, 950, 953, 954 | | F1L0J107A016 | CAPACITOR, 6.3V, 100µF | 4 |
| CN 901 | | K1MN40B00048 | CONNECTOR | 1 |

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|---|---|---|---|---|
| CN 902 | | K1MY12BA0309 | CONNECTOR | 1 |
| CN 904 | | K1KA02BA0014 | CONNECTOR | 1 |
| D 902 | | B0JDBE000002 | DIODE | 1 |
| F 902 | ⚠ | K5H202Z00005 | FUSE, 2A, 32V | 1 |
| IC 900 | | C1CB00002733 | AUDIO CODEC | 1 |
| IC 901 | | C0CBCBC00130 | IC, REGURATOR | 1 |
| IC 902 | | C0JBAE000306 | IC, | 1 |
| IC 903 | | C0JBAS000251 | IC | 1 |
| IC 904 | | C0ABBA000093 | IC, OP AMP | 1 |
| IC 905 | | AN12945A-VB | IC, AUDIO AMP | 1 |
| JK 901, 902 | | K2HC103B0197 | JACK | 2 |
| JK 903 | | K1QZA1AE0001 | CONNECTOR | 1 |
| L 900, 901, 904, 905, 907 | | J0JCC0000286 | INDUCTOR | 5 |
| L 902, 903 | | J0MAB0000174 | INDUCTOR | 2 |
| L 906 | | J0JJC0000015 | INDUCTOR | 1 |
| Q 900, 905, 908 | | B1GBCFNN0042 | TRANSISTOR | 3 |
| Q 902 | | XP0421300L | TRANSISTOR | 1 |
| Q 903, 904 | | B1CFGD000023 | TRANSISTOR | 2 |
| Q 907 | | B1GDCFNN0031 | TRANSISTOR | 1 |
| R 900, 904, 907, 909, 913, 920, 921, 928, 932, 940, 942, 947, 951 | | ERJ2GEJ103X | RESISTOR, 1/16W, 10KΩ | 13 |
| R 901, 922 | | ERJ2RKF2671X | RESISTOR, 1/16W, 2.67KΩ | 2 |
| R 902 | | ERJ2GEJ330X | RESISTOR, 1/16W, 33Ω | 1 |
| R 905, 910, 936 | | ERJ2GEJ472X | RESISTOR, 1/16W, 4.7KΩ | 3 |
| R 906, 911 | | ERJ2GEJ390X | RESISTOR, 1/16W, 39Ω | 2 |
| R 912 | | ERJ2GEJ473X | RESISTOR, 1/16W, 47KΩ | 1 |
| R 915, 916 | | ERJ2RKF1003X | RESISTOR, 1/16W, 100KΩ | 2 |
| R 917 | | ERJ2GE0R00X | RESISTOR, 1/16W, 0Ω | 1 |
| R 918, 919, 930, 937, 939, 943, 944 | | ERJ2GEJ104X | RESISTOR, 1/16W, 100KΩ | 7 |
| R 923 | | ERJ2GEJ100X | RESISTOR, 1/16W, 10Ω | 1 |
| R 926 | | ERJ2RHD3922X | RESISTOR, 1/16W, 39.2KΩ | 1 |
| R 927 | | ERJ2RHD203X | RESISTOR, 1/16W, 20KΩ | 1 |
| R 929 | | ERJ2RKF1602X | RESISTOR, 1/16W, 16KΩ | 1 |
| R 931, 933 | | ERJ2RKF1002X | RESISTOR, 1/16W, 10KΩ | 2 |
| R 934, 938, 946, 948 | | ERJ2GEJ102X | RESISTOR, 1/16W, 1KΩ | 4 |
| R 935 | | ERJ2GEJ471X | RESISTOR, 1/16W, 470Ω | 1 |
| R 941, 945 | | ERJ2GEJ222X | RESISTOR, 1/16W, 2.2KΩ | 2 |
| R 950 | | ERJ3GEY0R00V | RESISTOR, 1/16W, 0Ω | 1 |
| **IO PCB** | | | | |
| C 880 | | F1H1H104A748 | CAPACITOR, 50V, 0.1µF | 1 |
| C 883 | | F1L1E106A017 | CAPACITOR, 25V, 10µF | 1 |
| C 884, 885, 886, 887, 888, 889, 890 | | F1G1H330A542 | CAPACITOR, 50V, 33pF | 7 |
| C 891 | | F1G1C104A042 | CAPACITOR, 16V, 0.1µF | 1 |
| C 892, 893 | | EZASCE101M | CAPACITOR ARRAY | 2 |
| CN 880 | | K1MY24AA0158 | CONNECTOR | 1 |
| CN 881 | | K1FA209BA004 | CONNECTOR | 1 |
| CN 882 | | K1FB115BA014 | CONNECTOR | 1 |
| CN 883 | ⚠ | DFJS1063ZA | I/O DC CABLE | 1 |
| D 880 | | B0JCPD000023 | DIODE | 1 |
| D 881 | | MA2J72900L | DIODE | 1 |
| F 800 | ⚠ | K5H802300002 | FUSE, 8A, 72V | 1 |
| JK 880 | ⚠ | K2EEYB000001 | JACK | 1 |
| L 880 | | J0JKC0000007 | INDUCTOR | 1 |
| L 881, 882, 883, 884, 885, 886, 887 | | J0JDC0000038 | CHIP BEADS | 7 |
| PA 880 | ⚠ | D4FB1R100015 | PROTECTOR 1.1A | 1 |
| R 881 | | D1BDR4700001 | RESISTOR, 1/8W, 0.47Ω | 1 |
| R 882, 883, 884 | | ERJ2RKF75R0X | RESISTOR, 1/16W, 75Ω | 3 |
| R 885, 886 | | ERJ2GEJ222X | RESISTOR, 1/16W, 2.2KΩ | 2 |
| **PAD PCB** | | | | |
| C 800, 801 | | F1G1H681A496 | CAPACITOR, 50V, 680pF | 2 |

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|---|---|---|---|---|
| C 802 | | F1G1E103A062 | CAPACITOR, 25V, 0.01µF | 1 |
| C 803, 804, 806 | | F1G1C104A042 | CAPACITOR, 16V, 0.1µF | 3 |
| C 805 | | F1J0J106A016 | CAPACITOR, 6.3V, 10µF | 1 |
| CN 800 | | K1MY04BA0104 | CONNECTOR | 1 |
| CN 801 | | K1MY06BA0309 | CONNECTOR | 1 |
| CN 802 | | K1MY40A00001 | CONNECTOR | 1 |
| CN 803 | | K1MY08AA0158 | CONNECTOR | 1 |
| CN 804, 807 | | K1KA02BA0014 | CONNECTOR | 2 |
| CN 805 | | K1MY10AA0158 | CONNECTOR | 1 |
| CN 806 | | K1MY10BA0309 | CONNECTOR | 1 |
| F 800 | ⚠ | K5H202Z00005 | FUSE, 2A, 32V | 1 |
| IC 800 | | C0EBE0000460 | IC | 1 |
| IC 801 | | C1DB00001417 | IC, FLAT PAD CONTROLLER | 1 |
| Q 800, 801 | | B1GKCFJN0004 | TRANSISTOR | 2 |
| R 800 | | ERJ2GEJ273X | RESISTOR, 1/16W, 27KΩ | 1 |
| R 801, 802 | | ERJ2GEJ822X | RESISTOR, 1/16W, 8.2KΩ | 2 |
| R 803 | | ERJ2GEJ105X | RESISTOR, 1/16W, 1MΩ | 1 |
| R 804, 805 | | ERJ2GEJ222X | RESISTOR, 1/16W, 2.2KΩ | 2 |
| RA 800 | | D1H81034A024 | RESISTOR ARRAY | 1 |
| SW 800, 801 | | K0ZZ00000618 | SW | 2 |
| SW 802, 803 | | EVQPLDA15 | SWITCH | 2 |
| X 800 | | H2D400400012 | OSCILLATOR, 4MHz | 1 |
| **SW PCB** | | | | |
| CN 950 | | K1MY10AA0158 | CONNECTOR | 1 |
| LD 951 | | B3ABB0000210 | DIODE | 1 |
| SW 950, 951, 952, 953, 954, 955 | | EVQPLDA15 | SWITCH | 6 |
| **LED-LEFT PCB** | | | | |
| CN 841 | | K1MY10AA0158 | CONNECTOR | 1 |
| LD 841, 842, 843, 844, 845, 846 | | B3ABB0000210 | DIODE | 6 |
| **PR PCB** | | | | |
| C 851, 852, 854 | | F1J1A1050021 | CAPACITOR, 10V, 1µF | 3 |
| C 855, 856, 857 | | J0MAB0000146 | INDUCTOR | 3 |
| CA 851, 852, 854, 857, 858, 859 | | J0HABC000004 | CAPACITOR ARRAY | 6 |
| CN 850 | | K1KYA0A00018 | CONNECTOR | 1 |
| CN 851 | | K1KAA0AA0244 | CONNECTOR | 1 |
| L 850 | | J0MAB0000200 | INDUCTOR | 1 |
| L 852, 853 | | J0JJC0000015 | INDUCTOR | 2 |
| **LED-RIGHT PCB** | | | | |
| LD 781 | | B3AGB0000040 | DIODE | 1 |
| LD 782 | | B3ADB0000065 | DIODE | 1 |
| LD 783 | | B3ABB0000210 | DIODE | 1 |
| CN 780 | | K1MY06AA0158 | CONNECTOR | 1 |
| **SD PCB** | | | | |
| LD 880 | | B3ACB0000020 | DIODE | 1 |
| C 880 | | F1G1H330A542 | CAPACITOR, 50V, 33pF | 1 |
| C 881, 882, 884, 885, 886, 887 | | F1G1C104A042 | CAPACITOR, 16V, 0.1µF | 6 |
| C 889, 890, 891, 892 | | F1H2A103A020 | CAPACITOR, 100V, 0.01µF | 4 |
| C 893 | | F1L3D102A003 | CAPACITOR, 2000V, 1000pF | 1 |
| CN 880 | | K1MY24BA0310 | CONNECTOR | 1 |
| CN 881 | | K1NA09E00076 | CONNECTOR | 1 |
| CN 882 | | K1KA08BA0014 | CONNECTOR | 1 |
| R 880 | | D1H87504A024 | RESISTOR ARRAY | 1 |
| R 882 | | ERJ2GEJ103X | RESISTOR, 1/16W, 10KΩ | 1 |
| T 880, 881 | | G5BYC0000015 | TRANCE | 2 |
| **HSDPA PCB** | | | | |
| C 600, 603 | | F1G1H1010005 | CAPACITOR, 50V, 100pF | 2 |
| C 601, 602, 604, 608 | | F1J0J106A016 | CAPACITOR, 6.3V, 10µF | 4 |
| C 609, 610 | | EEFUD0J151ER | CAPACITOR, 6.3V, 150µF | 2 |
| C 613, 614, 615, 616 | | F1G1C104A042 | CAPACITOR, 16V, 0.1µF | 4 |
| C 611, 612, 617, 620 | | F1G1C104A042 | CAPACITOR, 16V, 0.1µF | 4 |

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|---|---|---|---|---|
| C 619 | | EEFCX0J121R | CAPACITOR | 1 |
| C 622 | | F1G1H221A495 | CAPACITOR, 50V, 220pF | 1 |
| CN 600 | | K1MN50BA0153 | CONNECTOR | 1 |
| CN 601 | | K1MY52BA0190 | CONNECTOR | 1 |
| CN 602 | | K1NA08E00013 | SIM CONNECTOR | 1 |
| CN 604 | | K1MY10BA0309 | CONNECTOR | 1 |
| D 600 | | B0KB00000044 | DIODE | 1 |
| D 603 | | B0JCRC000002 | DIODE | 1 |
| IC 600 | | C0JBAZ002422 | IC, FET SWITCH | 1 |
| IC 601 | | C0JBAC000382 | IC, LOGIC | 1 |
| IC 602 | | C0DBAYY00204 | IC, DC/DC CONVERTER | 1 |
| IC 603 | | C0DBZGD00016 | IC | 1 |
| IC 604 | | C0DBZYY00026 | IC, USB POWER SW | 1 |
| IC 605 | | C0EBE0000460 | IC | 1 |
| JK 600, 601 | | K1QZA1AE0001 | CONNECTOR | 2 |
| L 600 | | J0JJC0000015 | INDUCTOR | 1 |
| L 601 | | J0JJC0000015 | INDUCTOR | 1 |
| L 602 | | J0MAB0000200 | INDUCTOR | 1 |
| L 603 | | G1C2R7MA0273 | INDUCTOR, COIL | 1 |
| Q 600 | | B1DHFD000015 | TRANSISTOR | 1 |
| Q 602, 604 | | B1GBCFNN0042 | TRANSISTOR | 2 |
| Q 603 | | B1CFGD000023 | TRANSISTOR | 1 |
| R 600 | | D1BDR0330001 | RESISTOR, 1/8W, 0.033Ω | 1 |
| R 601 | | D1BDR0470002 | RESISTOR, 1/8W, 0.047Ω | 1 |
| R 602, 606, 609, 615, 616 | | ERJ2GEJ103X | RESISTOR, 1/16W, 10KΩ | 5 |
| R 603, 613 | | ERJ2GE0R00X | RESISTOR, 1/16W, 0Ω | 2 |
| R 604, 611, 612, 619 | | ERJ2GEJ101X | RESISTOR, 1/16W, 100Ω | 4 |
| R 608 | | ERJ2RKF1001X | RESISTOR, 1/16W, 1KΩ | 1 |
| R 610 | | ERJ6GEY0R00V | RESISTOR, 1/10W, 0Ω | 1 |
| R 617 | | ERJ2RKF1002X | RESISTOR, 1/16W, 10KΩ | 1 |
| R 618 | | ERA3YEB303V | RESISTOR, 1/16W, 30KΩ | 1 |
| R 621, 622 | | ERJ2GEJ104X | RESISTOR, 1/16W, 100KΩ | 2 |
| SW 600 | | K0D444A00041 | SWTICH | 1 |
| ZA 600, 601 | | K1YGZZ000060 | SPACER | 2 |
| CN 603 | | K1FY104BA024 | CONNECTOR, USB | 1 |
| **PPOWER SWPCB** | | | | |
| CN 980 | | K1KA02AA0262 | CONNECTOR | 1 |
| SW 980 | | K0D112A00096 | SW | 1 |
| **BT PCB** | | | | |
| C 1 | | F1J0J106A016 | CAPACITOR, 6.3V, 10µF | 1 |
| C 2, 4, 7, 11 | | F1G1C104A042 | CAPACITOR, 16V, 0.1µF | 4 |
| C 3, 5 | | F1G1H102A496 | CAPACITOR, 50V, 1000pF | 2 |
| C 6, 9 | | F1G1E103A062 | CAPACITOR, 25V, 0.01µF | 2 |
| C 8 | | F1G1H270A542 | CAPACITOR, 50V, 27pF | 1 |
| C 10 | | F1G1HR50A543 | CAPACITOR, 50V, 0.5pF | 1 |
| CN 2 | | K1MY10BA0309 | CONNECTOR | 1 |
| IC 1 | | C0JBAZ002422 | IC, FET SWITCH | 1 |
| IC 2 | | N5HZZ0000056 | BLUETOOTH MODULE | 1 |
| IC 3 | | C0EBE0000460 | IC | 1 |
| IC 5 | | C0JBAC000382 | IC, LOGIC | 1 |
| JK 1 | | K1QZA1AE0001 | CONNECTOR | 1 |
| L 1, 2 | | J0JJC0000015 | INDUCTOR | 2 |
| L 4 | | G1C5N6ZA0029 | INCUCTOR | 1 |
| L 5 | | J0MAB0000200 | INDUCTOR | 1 |
| Q 1 | | B1GBCFNN0042 | TRANSISTOR | 1 |
| Q 2 | | B1DHDC000028 | TRANSISTOR | 1 |
| R 1, 2, 3 | | ERJ2GEJ103X | RESISTOR, 1/16W, 10KΩ | 3 |
| **TS PCB** | | | | |
| C 900, 901, 902, 903 | | F1G1E472A062 | CAPACITOR, 25V, 4700pF | 4 |
| C 904, 905, 906, 907 | | F1G1H681A496 | CAPACITOR, 50V, 680pF | 4 |
| C 908, 911, 912 | | F1G1C104A042 | CAPACITOR, 16V, 0.1µF | 3 |
| C 909 | | F1G1E223A062 | CAPACITOR, 25V, 0.022µF | 1 |
| C 910 | | F1G1H102A496 | CAPACITOR, 50V, 1000pF | 1 |

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|---|---|---|---|---|
| C 913, 916 | | F1J0J106A016 | CAPACITOR, 6.3V, 10µF | 2 |
| C 914 | | F1G0J224A001 | CAPACITOR, 6.3V, 0.22µF | 1 |
| CN 900 | | K1MN04B00073 | CONNECTOR | 1 |
| CN 901 | | K1KA06BA0014 | CONNECTOR | 1 |
| IC 900 | | C0EBE0000460 | IC | 1 |
| IC 902 | | C1CB00002515 | IC, TOUCHPANEL CONTROLLER | 1 |
| Q 900, 901 | | XP0431400L | TRANSISTOR | 2 |
| Q 902 | | B1GDCFNN0031 | TRANSISTOR | 1 |
| R 900, 903, 905, 909, 911, 912, 917, 918, 922, 923 | | ERJ2GEJ102X | RESISTOR, 1/16W, 1KΩ | 10 |
| R 906, 930 | | ERJ2GEJ473X | RESISTOR, 1/16W, 47KΩ | 2 |
| R 908 | | ERJ2GEJ273X | RESISTOR, 1/16W, 27KΩ | 1 |
| R 913, 914, 915, 916 | | ERJ2GEJ822X | RESISTOR, 1/16W, 8.2KΩ | 4 |
| R 919, 925 | | ERJ2GE0R00X | RESISTOR, 1/16W, 0Ω | 2 |
| R 926 | | D1HA47380002 | RESISTOR ARRAY | 1 |
| R 927, 928 | | ERJ2GEJ270X | RESISTOR, 1/16W, 27Ω | 2 |
| R 929 | | ERJ2GEJ152X | RESISTOR, 1/16W, 1.5KΩ | 1 |
| X 900 | | H2D600400005 | OSCILLATOR, 6MHz | 1 |